Copy No._____

TOWN OF EASTON, MASSACHUSETTS
CONTRACT DOCUMENTS
FOR

BRIDGE NO. E06022
MAIN STREET OVER QUESET BROOK
BRIDGE SCOUR REPAIR
DPW 2026-16

February 2026

Town of Easton
Department of Public Works

David J. Field, P.E., Director of Public Works

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SECTION 00020

INVITATION FOR BIDS

Sealed bids for furnishing the following item(s) will be received at the Office of the Town Administrator located at 136 Elm Street, North Easton, MA 02356 until the time specified below at which time the proposals will be publicly opened and read:

	ITEM	BID OPENING
Bid:	**BRIDGE NO. E06022 MAIN STREET OVER QUESET BROOK BRIDGE SCOUR REPAIR DPW 2026-16**	**April 16th, 2026, 2:00 PM**

Specifications, plans and bid forms may be obtained at https://www.accentblueprints.com/ after March 16th, 2026.

Bids will be opened in the Selectmen's Meeting Room at Town Hall, 136 Elm Street, North Easton, MA, 02356 at 2:00 PM on April 16th, 2026. Each Bid must be accompanied by a bid security consisting of a BID BOND, CASH, or, CERTIFIED CHECK issued by a responsible bank or trust company in the amount of 5% of the bid price.

A Pre-Bid Conference will be held at the site located at 261 Main Street on April 2nd, 2026 at 11:00 AM. It is not mandatory but strongly encouraged that all prospective bidders have a representative in attendance.

A performance bond in an amount equal to 100 percent of the total amount of the bid with a surety company qualified to do business in the Commonwealth of Massachusetts will be required for the faithful performance of the contract as well as a labor and materials bond in an amount equal to 100 percent of the total bid amount.

Prospective Bidders must be prequalified in accordance with 700 CMR 14.00, "Prequalification of Contractors and Subcontractors". Bids received by Contractors not on the official or waiver contractor lists issued by the MassDOT Prequalification Office will be considered not qualified and their bid will not be opened. For the work specified under this Contract, MassDOT prequalification of contractors with the class of work as, **Bridge - Construction**, for the project with an estimated value of **$407,455.00** will be required

All bids for this project are subject to applicable public bidding laws of Massachusetts, including G.L. c.30, §39M and G.L. c.149, §44A through 44H, as amended.

Attention is directed to the minimum wage rates to be paid as determined by the Commissioner of Labor and Industries under the provisions of Massachusetts General Laws, Chapter 149, Section 26 to 27D inclusive.

Selection of the contractor will be based upon bidder qualifications, including evidence of past performance in similar projects, and bid price. The contract will be awarded to the bidder deemed by the awarding authority to be the lowest responsible and eligible bidder.

The Town of Easton is an affirmative action/equal opportunity owner/purchaser.

The bidder agrees that its bid shall be good and may not be withdrawn for a period of 30 days, Saturdays, Sundays and legal holidays excluded, after the opening of the bids.

The Town reserves the right to waive any informalities, to accept or reject, in whole or in part any or all bids, or take whatever other action may be deemed to be in the best interest of the Town.

DEPARTMENT OF PUBLIC WORKS
EASTON, MASSACHUSETTS

SECTION 00100

INSTRUCTIONS TO BIDDERS

1. Receipt and Opening of Bids

The Town of Easton, Massachusetts, herein called the Owner, acting by and through its Town Administrator, will receive sealed Bids for **BRIDGE NO. E06022 MAIN STREET OVER QUESET BROOK BRIDGE SCOUR REPAIR – DPW 2026-16.**

Such bids addressed to the Town Administrator, 136 Elm Street, North Easton, MA 02356, and endorsed Bid for **BRIDGE NO. E06022 MAIN STREET OVER QUESET BROOK BRIDGE SCOUR REPAIR – DPW 2026-16** will be received at Selectmen's Meeting Room at Town Hall, 136 Elm Street, Easton, MA, 02356 until 2:00 PM time, on April 16th, 2026 at which time and place said bids will be publicly opened and read aloud.

Any bid may be withdrawn prior to the above-scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified will not be considered. The bidder agrees that this bid shall be good and may not be withdrawn for a period of 30 days, Saturdays, Sundays, and legal holidays excluded, after the opening of bids.

2. Location and Work to be Done

The work consists of scour repairs to the abutments on the existing bridge on Main Street in Easton, Massachusetts, as shown in the project plans and specifications.

The location, general characteristics, and principal details of the Work are indicated on plans attached hereto. The exact location and work to be done are shown for information only and are subject to modifications, deletions, and additions as deemed necessary by the Owner.

Additional drawings showing details in accordance with which the Work is to be done may be furnished by addendum from time to time during the bidding period by the Owner or its Engineer, and shall then become a part of the Contract Documents.

The Contractor shall furnish all labor, services, materials, equipment, plant, machinery, apparatus, appliances, tools, supplies, and all other things necessary to do all work required for the completion of each item of the Work and as herein specified.

The Work to be done and paid for under any item shall not be limited to the exact extent mentioned or described but shall include all incidental work necessary or customarily done for the completion of that item.

3. Preparation of Bid

Each bid must be submitted on the prescribed form. All blank spaces for bid prices must be filled in, in ink or typewritten, in both words and figures.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his address, and endorsed with the name of the project as specified in Receipt and Opening of Bids, above.

If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in Receipt and Opening of Bids, above.

4. Bid Opening Procedure

The following list of requirements shall apply to each filed bid. Bids not meeting all the requirements for timeliness and security will be rejected without opening; bids not meeting signature and addenda requirements will be rejected prior to checking of bid amounts.

Bids shall be filed at the place and before the time specified in Receipt and Opening of Bids, above.

Properly executed bid security shall be placed in a sealed envelope and shall be attached to the outside of the envelope containing the bid.

Bid signatures will be checked.

All addenda will be by electronic mail (e-mail), to all prospective bidders and the last of which will be e-mailed not later than five days prior to the date established for submission of bids, or by other means provided that confirmation of receipt of addenda is provided. All bidders shall include with their bids the written acknowledgement provided in Section 00300, FORM OF GENERAL BID.

The total dollar amount of each bid will be read, and the three apparent lowest bids will be selected for further consideration. These three apparent low bids will be read aloud for the benefit of the other bidders and the bid opening procedure will be closed. All those present at the bid opening may examine all bids after the bid opening and after the reading of the three apparent low bids.

5. Modification, Correction, and Withdrawal

A bidder may correct, modify, or withdraw a bid by written notice received by the Owner not later than the close of business on the day before the bid opening. Bid modifications must be submitted in the same manner as provided in Preparation of Bid, in a sealed envelope clearly labeled "Modification No.__." Each modification must be numbered in sequence, must reference the original Invitation for Bids, "**BRIDGE NO. E06022 MAIN**

STREET OVER QUESET BROOK BRIDGE SCOUR REPAIR – DPW 2026-16," and must be signed by the same person who signed the FORM OF GENERAL BID or a surrogate so authorized in writing.

After the bid opening, a bidder may not change any provision of the bid in a manner prejudicial to the interests of the Owner or fair competition as determined by the Owner. Minor informalities will be waived or the bidder will be allowed to correct them. If a mistake and the intended bid are clearly evident on the face of the bid document, the mistake will be corrected to reflect the intended correct bid, and the bidder will be notified in writing; the bidder may not withdraw the bid. A bidder may withdraw a bid if a mistake is clearly evident on the face of the bid document, but the intended correct bid is not similarly evident.

6. Ability and Experience of Bidder

No award will be made to any bidder who cannot satisfy the Owner that he has sufficient ability and experience in this class of work and sufficient capital and plant to enable him to prosecute and complete the work successfully within the time named. The Owner's decision or judgment on these matters will be final, conclusive, and binding.

Prospective Bidders must be prequalified in accordance with 700 CMR 14.00, "Prequalification of Contractors and Subcontractors". Bids received by Contractors not on the official or waiver contractor lists issued by the MassDOT Prequalification Office will be considered not qualified and their bid will not be opened. For the work specified under this Contract, the Contractor or Subcontractor(s) shall be prequalified for the following classes of work: **Bridge Construction**

The Owner may make such investigations as he deems necessary, and the bidder shall furnish to the Owner, under oath if so required, all such information and data for this purpose as the Owner may request.

7. Conditions of Work

Each bidder must familiarize himself fully with the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his obligation to furnish all material and labor necessary to carry out the provisions of his contract. Insofar as possible the Contractor, in carrying out his work, must employ such methods or means as will not cause any interruption of or interference with the work of any other Contractor.

8. Addenda and Interpretations

No interpretation of the meaning of the plans, specifications or other prebid documents will be made to any bidder orally. All information given to bidders other than by means of the plans, specifications, or by addenda, as described below, is given informally and shall not be used as the basis of a claim against the Owner.

Every request for such interpretation should be in writing addressed to the Director of Public Works, 130 Center Street, North Easton, MA 02356, and to be given consideration must be received at least seven days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, when issued, will be e-mailed to all prospective bidders (at the respective address furnished by them for such purposes), not later than five days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

9. Security for Faithful Performance

Simultaneously with his delivery of the executed Contract, the Contractor shall furnish a surety bond or bonds as security for faithful performance of this contract and for the payment of all persons performing labor and materials under this contract as specified in Section 00700, GENERAL CONDITIONS included herein. The surety on such bond or bonds shall be a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the Owner. The bonds shall remain in force for one year after final acceptance of the work by the Owner, unless the Owner, in writing, releases the Contractor from the obligation sooner.

10. Power of Attorney

Attorneys-in-fact who sign Contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

11. Laws and Regulations

The bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full. Attention is directed to Section 00850 and to other applicable sections of this specification.

12. Liquidated Damages for Failure to Enter into Contract

The successful bidder, upon his failure or refusal to execute and deliver the Contract and bonds required within 10 days after he/she has received notice of the acceptance of his/her bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, a portion of security deposited with his/her bid, but the amount forfeited shall not exceed the difference between his/her bid price and the bid price of the next lowest responsible and eligible bidder. In case of death, disability, bona fide clerical or mechanical error of

a substantial nature, or other similar unforeseen circumstances affecting the bidder, his/her bid deposit will be returned.

13. Obligation of Bidder

At the time of the opening of bids each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the Contract Documents (including all addenda). The failure or omission of any bidder to examine any form, instrument, or document shall in no way relieve any bidder from any obligation in respect of his bid.

14. Information Not Guaranteed

All information given in the Contract Documents relating to subsurface and other conditions, natural phenomena, existing pipes, and other structures is from the best sources at present available to the Owner. All such information is furnished only for the information and convenience of bidders and is not guaranteed.

It is agreed and understood that the Owner does not warrant or guarantee that the subsurface or other conditions, natural phenomena, existing pipes, or other structures encountered during construction will be the same as those indicated in the Contract Documents.

It is further agreed and understood that no bidder or Contractor shall use or be entitled to use any of the information made available to him or obtained in any examination made by him in any manner as a basis of or ground for any claim or demand against the Owner or the Engineer, arising from or by reason of any variance which may exist between the information made available and the actual subsurface or other structures actually encountered during the construction work, except as may otherwise be expressly provided for in the Contract Documents.

15. Bid Security

Each bid must be accompanied by a certified check, a bid bond, cash, a treasurer's or cashier's check, payable to the Owner, in the amount equal to five percent (5%) of the bid price. Such checks will be returned to all except the three lowest responsible and eligible bidders within five days, Saturdays, Sundays, and legal holidays excluded, after the opening of bids, and the remaining checks will be returned promptly after the Owner and the accepted bidder have executed the Contract, or if no notice of intent to award has been presented to the selected contractor within 30 days, Saturdays, Sundays and holidays excluded, after the date of the opening of bids, upon demand of the bidder at any time thereafter.

16. Right to Reject Bid

The Owner reserves the right to waive any informalities or reject any and all bids, should the Owner deem it to be in the public interest to do so.

The Owner may also reject bids which in its sole judgment are either incomplete, conditional, obscure or not responsive or which contain additions not called for, erasures not properly initialed, alterations, or similar irregularities, or the Owner may waive such omissions, conditions or irregularities.

The Owner also reserves the right to reject the bid of any bidder that the Owner considers to be unqualified based on the criteria set forth in Section 6 herein.

17. Time for Completion

The bidder must agree to commence work within ten (10) days of the date of the Notice to Proceed and to fully complete the project within the time limit stated in Section 00300, FORM OF GENERAL BID. Should the successful bidder fail to complete the work on or before the time set forth or as provided in the Contract Documents covering extension of time, the Owner may retain an amount as set forth in Section 00500 - Agreement as liquidated damages for each calendar day in accordance with the provisions of that section.

18. Comparison of Bids

Bids will be compared on the basis of the quantities and unit and lump sum prices set forth in the bid forms.

In the event that there is a discrepancy in Section 00300, FORM OF GENERAL BID between the lump sum or unit prices written in words and figures, the prices written in words will govern. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

The Owner agrees to examine and consider each FORM OF GENERAL BID submitted in consideration of the qualifications of the bidder and the bidder's agreements, as hereinabove set forth and as set forth in Section 00300, FORM OF GENERAL BID.

19. Award of Contract

The Contract will be awarded to "the lowest responsible and eligible bidder" pursuant to General Laws Chapter 30, Section 39M, as amended. Such a bidder shall possess the skill, ability and integrity necessary for the faithful performance of the work, shall be able to furnish labor that can work in harmony with all other elements of labor employed, or to be employed, in the work, and shall otherwise comply with all applicable provisions of law.

20. Statutes Regulating Competitive Bidding

Any bid which does not comply with the provisions of Massachusetts General Laws Chapter 30, Section 39M as amended, need not be accepted and the Owner may reject every such bid.

21. Wage Rates

Prevailing Wage Rates as determined by the Commissioner of Department of Labor and Industries under the provision of the Massachusetts General Laws, Chapter 149, Section 26 to 27G, as amended, apply to this project. It is the responsibility of the contractor, before bid opening, to request if necessary, any additional information on Prevailing Wage Rates for those tradespeople who may be employed for the proposed work under this contract.

State schedules of Prevailing Wage Rates are included in the Supplemental General Conditions section of the contract documents.

22. Contractor Records

The Contractor shall comply with the provisions of Massachusetts General Laws, Chapter 30, Section 39R, concerning Contractor records.

23. Insurance

The Contractor shall carry and continuously maintain until completion of the Contract, insurance as specified in the Supplemental General Conditions and in such form as shall protect him performing work covered by this Contract, or the Owner and its employees, agents and officials, from all claims and liability for damages for bodily injury, including accidental death, and for property damage, which may arise from operations under this Contract. The Contractor covenants and agrees to hold the Owner and its employees, agents and officials harmless from loss or damage due to claims for personal injury and/or property damage arising from, or in connection with operations under this Contract.

24. Affirmative Action/Equal Employment Opportunity Laws and Regulations

The Owner is an affirmative action/equal opportunity owner/purchaser. The bidder's attention is directed to all applicable State Laws, Town Bylaws, and rules and regulations regarding affirmative action/equal employment opportunity requirements. Failure of a bidder to comply with any such law, bylaw, rule or regulation shall constitute grounds for the Owner to reject a bid or to otherwise reject or terminate the award of the contract pursuant to these contract documents.

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SECTION 00300

FORM OF GENERAL BID

Bid of _____ (hereinafter called "Bidder")*

(____) a corporation or limited liability company, organized and existing under the laws of the state of _____

(____) a partnership

(____) a joint venture

(____) an individual
doing business as _____

To the Town of Easton, Massachusetts (hereinafter called "Owner").

Gentlemen:

The Bidder, in compliance with your invitation for bids for **BRIDGE NO. E06022 MAIN STREET OVER QUESET BROOK BRIDGE SCOUR REPAIR – DPW 2026-16**, having examined the plans and specifications with related documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the project in accordance with the contract documents within the time set forth below, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the contract documents, of which this proposal is a part.

The Bidder hereby agrees to commence work under this contract on or before a date to be specified in written "Notice to Proceed" of the Owner, and to fully complete the project within 90 consecutive calendar days thereafter. The Bidder further agrees to pay as liquidated damages the sum of eight hundred fifty ($850) Dollars for each consecutive calendar day thereafter as hereinafter provided in Section 00700 GENERAL CONDITIONS.

*Insert corporation, limited liability company, partnership or individual as applicable.

Bidder acknowledges receipt of the following addenda:

No._____ Dated:_____

No._____ Dated:_____

No._____ Dated:_____

The Bidder agrees to perform the base bid work described in the specifications and shown on the plans for the following lump sum price:

Item No.	Qty.	Item Description	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
143	22	Channel Excavation at: Cubic Yard				
156.5	4	Crushed Stone for Filter Blanket: Cubic Yard				
250.04	116	Polyvinyl Chloride Sanitary Sewer Pipe at: Foot				
698.3	95	Geotextile Fabric for Separation at: Square Yard				
748	1	Mobilization at: Lump Sum				

767.121	84	Sediment Control Barrier at: Foot				
850	1	Temporary Traffic Management at: Lump Sum				
908.3	121	Masonry Substructures Repairs at: Cubic Foot				
910.1	900	Steel Reinforcement for Structures–Epoxy Coated at: Pound				
988.3	30	Channel Paving – Grout Filled Bags at: Cubic Yard				
991.1	1	Control of Water – Structure No. E06022 at: Lump Sum				
999.001	1	Traffic Police at: Twenty-five Thousand Dollars and No Cents Allowance	25,000	00	25,000	00

999.300	1	Materials Inspection, Sampling and Testing at: Ten Thousand Dollars and No Cents Allowance	10,000	00	10,000	00
999.800	1	Additional Materials at: Twenty Thousand Dollars and No Cents Allowance	20,000	00	20,000	00
999.801	1	Additional Artisans at: Twenty Thousand Dollars and No Cents Allowance	20,000	00	20,000	00

Total Bid in Figures $ _____

Total Bid in Words _____

_____

Name of Bidder:_____

The Owner reserves the right to award the contract based on the Base Bid.

The above price shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

The Bidder understands that all bids for this project are subject to the applicable bidding laws of the Commonwealth of Massachusetts, including General Laws Chapter 30, Section 39M, as amended.

The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of 30 days, Saturdays, Sundays and legal holidays excluded, after the opening of bids.

Within 10 days of receipt of the written notice of acceptance of this bid, the Bidder will execute the formal Agreement attached in Section 00500 CONTRACT.

Bid security is attached in the sum of five percent (5%) of the total bid in accordance with the conditions of Section 00100 INSTRUCTIONS TO BIDDERS. The bid security may become the property of the Owner in the event the contract and bond are not executed within the time set forth above.

The selected Contractor shall furnish a performance bond and a payment bond in an amount at least equal to one hundred percent (100%) of the contract price in accordance with Section 00610 PERFORMANCE BOND, Section 00620 PAYMENT BOND, and as stipulated in Section 00700 GENERAL CONDITIONS of these specifications.

The undersigned offers the following information as evidence of his qualifications to perform the work as bid upon according to all the requirements of the plans and specifications.

1. Have been in business under present name for ____ years.

2. The names and addresses of all persons interested in the bid (if made by a partnership or corporation) as Principals, are as follows:

   _____
   _____
   _____
   _____
   _____
   _____
   (attach supplementary list if necessary)

3. The bidder is requested to state below what work of a similar character to that included in the proposed contract he has done and state below **ALL** work has been awarded and/or completed within the last 3 years, and give references that will enable the Owner to judge his experience, skill and business standing (add supplementary page(s) if necessary).

Completion Date	Project Name	Contract Amount	Design Engineer	Reference Name	Telephone No.

a._____

_____

b._____

_____

c._____

_____

d._____

_____

e._____

_____

f._____

_____

4. Bank reference _____
(Name)

_____
(Bank)

_____
(Address)

_____
(Telephone No.)

Pursuant to M.G.L. c. 62C, § 49A, I certify under the penalties of perjury that I, to my best knowledge and belief, have filed all state tax returns and paid all State Taxes Required under law.

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that he or she will comply fully with all laws and regulations applicable to awards made subject to chapter 149, section 44A of the Massachusetts General Laws.

The undersigned Bidder hereby certifies he/she will comply with any minority workforce percentage ratio and specific affirmative action steps contained in the EEO/AA provisions of this Contract, including compliance with the Minority/Woman Business Enterprise policy if required under these contract provisions. If applicable, the contractor receiving the award of the contract

shall be required to obtain from each of its subcontractors a copy of the certification by said subcontractor, regardless of tier, that it will comply with the minority workforce ratio and specific affirmative action steps contained in these EEO/AA contract provisions and submit it to the contracting agency prior to the award of such subcontract.

The undersigned certifies under penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this paragraph the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

Respectfully submitted:

Date:_____ By:_____
(Signature)

_____
(SEAL - if bid is by a corporation) (Name of Bidder)

_____
(Title)

_____
(Business Address)

_____
(City and State)

_____
(Telephone Number)

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SECTION 00500

AGREEMENT

THIS AGREEMENT, made this _____ day of _____,

20___, by and between the party of the first part, the Town of Easton, hereinafter called "OWNER," acting herein through its Select Board, and the party of the second part,

_____ doing business as *(an individual) (a partnership) (a joint venture) (a corporation) (a limited liability company) located in the * (City) (Town) of _____, County of _____, and State of

_____, hereinafter called "CONTRACTOR."

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the OWNER, the CONTRACTOR hereby agrees with the OWNER to commence and complete the project described as follows:

BRIDGE NO. E06022 MAIN STREET OVER QUESET BROOK BRIDGE SCOUR REPAIR – DPW 2026-16

hereinafter called the project, for the sum of

_____ Dollars

($_____) and all extra work in connection therewith, under the terms as stated in the Contract Documents; and at his (its or their) own proper cost and expense to furnish all the materials, supplies, machinery equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in Section 00300 FORM OF GENERAL BID, Section 00700 GENERAL CONDITIONS, and Section 00800 SUPPLEMENTAL GENERAL CONDITIONS, the plans, which include all maps, plates, blue prints, and the specifications and Contract Documents as prepared by the Owner.

_____

*Strike out inapplicable term.

The CONTRACTOR hereby agrees to commence work under this Contract on or before a date to be specified in written "Notice to Proceed" of the OWNER.

The CONTRACTOR further agrees to fully complete the project within 90 consecutive calendar days of the date of the notice to proceed.

The CONTRACTOR further agrees to pay as liquidated damages the sum of $850.00 for each consecutive calendar day thereafter as provided in Section 00700 GENERAL CONDITIONS.

The CONTRACTOR agrees not to discriminate against or exclude any person from participation herein on grounds of race, religion, color, sex, age or national origin; and that it shall take affirmative actions to insure that applicants are employed, and that employees are treated during their employment, without regard to race, religion, color, sex, age, handicapped status, or national origin.

The CONTRACTOR agrees not to participate in or cooperate with an international boycott, as defined in Section 999 (b)(3) and (4) of the Internal Revenue Code of 1954, as amended, or engage in conduct declared to be unlawful by Section 2 of Chapter 151E of the Massachusetts General Laws.

The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the contract, subject to additions and deductions, as provided in Section 00700 GENERAL CONDITIONS, and to make payments on account thereof as provided in the Estimates and Payments Paragraph of Section 00700 GENERAL CONDITIONS.

IN WITNESS WHEREOF, the parties to these presents have executed this contract in electronic counterparts, each of which shall be deemed an original and all of which shall constitute a single agreement, in the year and day first above mentioned.

AGREED:

The Town of Easton by:

The Contractor by:

_____ _____

Select Board - Chair Date Signature Date
Dottie Fulginiti

_____ _____

Craig Barger Select Board Date Print Name & Title

_____

Marc Lamb - Select Board Date

_____

Jennifer Stacy - Select Board Date

_____

Jamie Stebbins - Select Board Date

_____

David Field - Department Head Date

_____

Date
Chief Procurement Officer

Certified as to Form:

_____

Town Counsel Date

Certified as to
Appropriation/Availability of Funds:

_____

Wendy Nightingale - Town Accountant Date

CERTIFICATE OF VOTE
(to be filed if Contractor is a Corporation)

I, _____, hereby certify that I am the duly qualified
(Secretary of the Corporation)

and acting Secretary of _____ and I further certify that a meeting of the
(Name of Corporation)

Directors of said Company, duly called and held on _____, at which
(Date of Meeting)

all Directors were present and voting, the following vote was unanimously passed:

VOTED: To authorize and empower

_____

_____

_____

_____

_____

Any one acting singly, to execute Forms of General Bid, Contracts or Bonds on behalf of the Corporation.

I further certify that the above vote is still in effect and has not been changed or modified in any respect.

By:_____
(Secretary of Corporation)

A True Copy:

Attest:_____
(Notary Public)

My Commission Expires:_____
(Date)

Contractor's Certification

A Contractor will not be eligible for award of a contract unless such Contractor has submitted the following certification, which is deemed a part of the resulting contract:

CONTRACTOR'S CERTIFICATION

_____

Name of the General Contractor

certifies that:

1. It intends to use the following listed construction trades in the work under the contract

   _____

   _____

2. Will comply with any minority workforce ratio and specific affirmative action steps contained herein; and

3. Will obtain from each of its subcontractors and submit to the contracting or administering agency prior to the award of any subcontract under this contract the subcontractor's certification required by these bid conditions.

_____

Signature of Authorized
Representative of Contractor

Subcontractor's Certification

Prior to the award of any subcontract, regardless of tier, the prospective subcontractor must execute and submit to the General Contractor the following certification, which will be deemed a part of the resulting subcontract:

SUBCONTRACTOR'S CERTIFICATION

_____
Name of the Subcontractor

certifies that:

1. It intends to use the following listed construction trades in the work under contract

   _____

   _____

2. Will comply with any minority workforce ratio and specific affirmative action steps contained herein; and

3. Will obtain from each of its subcontractors prior to the award of any subcontract under this contract the subcontractor's certification required by these bid conditions.

_____
Signature of Authorized
Representative of Subcontractor

CERTIFICATION OF GOOD FAITH

The undersigned certifies under pains and penalties of perjury that this contract has been obtained in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

The Contractor by:

_____
Signature Date

_____
Print Name

_____
Title/Authority

CERTIFICATE OF STATE TAX COMPLIANCE

Pursuant to Massachusetts General Laws, Chapter 62C, Section 49A
_____, authorized signatory for
name of signatory
_____, whose
name of contractor
principal place of business is at _____,
_____does hereby certify under the pains and penalties of perjury
that _____ has paid all
name of contractor
Massachusetts taxes and has complied with all laws of the Commonwealth of Massachusetts relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

_____
Signature Date

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SECTION 00610

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____
(Name of Contractor)

a _____ hereinafter called "Principal" and
(Corporation, LLC, Partnership, Joint Venture or Individual)

_____of _____, State of _____
(Surety) (City)

hereinafter called the "Surety" and licensed by the State Division of Insurance to do business under the laws of the Commonwealth of Massachusetts, are held and firmly bound to the Town of Easton, Massachusetts, hereinafter called "Owner", in the penal sum of _____ Dollars ($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas the Principal has entered into a certain contract with the Owner (the "Construction Contract"), dated the _____ day of _____, 20___, for the construction described as follows:

BRIDGE NO. E06022 MAIN STREET OVER QUESET BROOK BRIDGE SCOUR REPAIR – DPW 2026-16

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of the Construction Contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under the Construction Contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise, this obligation shall remain in full force and effect.

PROVIDED, FURTHER, that the Surety's obligation under this Bond shall arise after (1) the Owner has declared the Principal in default of the Construction Contract or (2) has declared that the Principal has failed, or is otherwise unable or unwilling, to execute the work consistent with, and in conformance to, the Construction Contract (each referred to as a "Contractor Default"). The determination of a Contractor Default shall be made solely by the Owner.

When the Surety's obligation under this Bond arises, the Surety, at its sole expense and at

the consent and election of the Owner, shall immediately take one of following steps: (1) arrange for the Principal to perform and complete the work of the Construction Contract; (2) arrange for a contractor other than the Principal to perform and complete the work of the Construction Contract; (3) reimburse the Owner, in a manner and at such time as the Owner shall decide, for all costs and expenses incurred by the Owner in performing and completing the work of the Construction Contract.

If the Surety does not proceed as provided in this Bond with due diligence and all deliberate speed, the Surety shall be deemed to be in default of this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner.

After the Surety's obligation under this Bond arises, the Surety is obligated, to the limit of the amounts of this Bond, for (1) the correction of defective work and completion of the Construction Contract; (2) additional design, professional services, and legal costs, including attorney's fees, resulting from the Contractor Default or from the default of the Surety under this Bond; (3) any additional work beyond the Construction Contract made necessary by the Contractor Default or default of the Surety under this Bond; and (4) liquidated damages as provided in the Construction Contract, or if none are so specified, actual and foreseeable consequential damages resulting from the Contractor Default or default of the Surety under this Bond.

Any proceeding, legal or equitable, under this Bond shall be instituted in any court of competent jurisdiction in the Commonwealth of Massachusetts.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Construction Contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Construction Contract or to the work or to the specifications.

IN WITNESS WHEREOF, this instrument may be executed in electronic counterparts, each of which shall be deemed an original and all of which shall constitute a single agreement, this the _____ day of _____, 20___.

ATTEST:

_____
Principal

_____ By _____
(Principal Secretary)

_____

_____

_____
(Address-Zip Code)

_____ (SEAL)
Witness as to Principal

_____

_____
(Address-Zip Code)

ATTEST:

_____
Surety

_____ By _____
(Attorney-in-Fact)

_____

_____
(Address-Zip Code)

_____ (SEAL)
Witness as to Surety

_____

_____
(Address-Zip Code)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners should execute Bond.

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SECTION 00620

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____

_____ a_____ _____
(Name of Contractor) (Corporation, LLC, Partnership, Joint Venture or Individual)

hereinafter called "Principal" and _____ of _____,
(Surety)

State of _____ hereinafter called the "Surety" and licensed by the State
(City and State)

Division of Insurance to do business under the laws of the Commonwealth of Massachusetts, are held and firmly bound to the Town of Easton, Massachusetts, hereinafter called "Owner", in the penal sum of _____ Dollars ($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain contract with the Owner, dated the _____ day of _____, 20___, a copy of which is hereto attached and made a part hereof for the construction described as follows:

BRIDGE NO. E06022 MAIN STREET OVER QUESET BROOK BRIDGE SCOUR REPAIR – DPW 2026-16

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change,

extension of time, alteration or addition to the terms of this contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument may be executed in electronic counterparts, each of which shall be deemed an original and all of which shall constitute a single agreement, this the _____ day of _____, 20__.

ATTEST:

_____
Surety

_____ By _____
(Attorney-in-Fact)

_____

_____
(Address-Zip Code)

_____ (SEAL)
Witness as to Surety

_____

_____
(Address-Zip Code)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners should execute Bond.

SECTION 00650

CERTIFICATE OF INSURANCE

The Contractor shall provide certificates of insurance acceptable to the OWNER prior to the commencement of the work. The minimum coverage to be provided shall be as follows:

		Occurrence	Aggregate
A.	Owners Protective Liability:		
	Bodily Injury	$1,000,000	$1,000,000
	Property Damage	$1,000,000	$1,000,000
B.	Comprehensive General Liability		
	Bodily Injury	$1,000,000	$3,000,000
	Property Damage	$1,000,000	$3,000,000
	Including: 1. Operations/Premises 2. XCU 3. Products/Completed Operations 4. Contractual as Below 5. Independent Contractors 6. Broad Form Property Damage 7. Personal Injury		
C.	Auto Liability	Per Person	Per Accident
	Bodily Injury	$500,000	$1,000,000
	Property Damage		$1,000,000
	Including: 1. All Owned 2. Hired 3. Non-owned		
D.	Workman's Compensation Compensation Statutory State(s) Coverage B Limit $1,000,000 if Applicable		
E.	Umbrella Liability $2,000,000 Aggregate		

CONTRACTUAL LIABILITY

To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify, and hold harmless OWNER and its consultants, agents and employees from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) arising out of or resulting from performance of the Work, provided that any such claim, damage, loss or expense(s) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is imposed by Law and Regulations regardless of the negligence of any such party.

In any and all claims against OWNER or any of its consultants, agents or employees by any employee of CONTRACTOR, and subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, the indemnification obligation under the above paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such subcontractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts or other employee benefits acts.

Policies B, C, D, and E shall remain in effect during the one-year correction period.

Such insurance as is herein certified applies to all operations of the insured in connection with, and necessary and incidental to, the work herein described at the locations stated.

It is hereby understood and agreed that the above policies will not be restrictively amended, materially changed nor canceled without 30 days advance notice by registered mail to OWNER.

_____	_____
Authorized Representative Signature (Include Evidence of Authorization)	Address

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. *Bidder*—An individual or entity that submits a Bid to Owner.

6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.

7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.

8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.

9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer

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has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.

13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.

14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .

15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.

16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.

17. *Cost of the Work*—See Paragraph 13.01 for definition.

18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.

19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.

20. *Engineer*—The individual or entity named as such in the Agreement.

21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.

22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.

23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

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24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.

26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.

27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.

28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.

32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.

33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.

34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.

35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

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37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.

38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.

39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.

42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.

43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.

45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

46. *Unit Price Work*—Work to be paid for on the basis of unit prices.

47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

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48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 *Terminology*

A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives*:

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. *Day*:

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*:

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents; or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).

E. *Furnish, Install, Perform, Provide*:

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

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3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.

C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.

B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;

2. a preliminary Schedule of Submittals; and

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3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.

B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.

C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or

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computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

A. Standards Specifications, Codes, Laws and Regulations

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*:

1. *Contractor's Verification of Figures and Field Measurements*: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

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error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents*: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.

B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

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3.05 *Reuse of Documents*

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

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2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.

B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;

2. abnormal weather conditions;

3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and

4. acts of war or terrorism.

D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

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G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*:

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part

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by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

B. *Removal of Debris During Performance of the Work*: During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and

3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

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5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor*: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or

2. is of such a nature as to require a change in the Drawings or Specifications; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review*: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Possible Price and Times Adjustments*:

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;

b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

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c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or

b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

c. Contractor failed to give the written notice as required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

A. *Contractor's Responsibilities*: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;

b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;

c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. *Notice by Contractor*: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after

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becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

C. *Engineer's Review*: Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. *Owner's Statement to Contractor Regarding Underground Facility*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Possible Price and Times Adjustments*:

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

    a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;

    b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

    c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and

    d. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

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5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and

2. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

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F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.

H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

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ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.

B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.

D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.

E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

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maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.

H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.

I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.

J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

A. *Workers' Compensation*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.

2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).

3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

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4. Foreign voluntary worker compensation (if applicable).

B. *Commercial General Liability—Claims Covered*: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:

1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.

2. claims for damages insured by reasonably available personal injury liability coverage.

3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

C. *Commercial General Liability—Form and Content*: Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage:

a. Such insurance shall be maintained for three years after final payment.

b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.

2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.

3. Broad form property damage coverage.

4. Severability of interest.

5. Underground, explosion, and collapse coverage.

6. Personal injury coverage.

7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.

8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

D. *Automobile liability*: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.

E. *Umbrella or excess liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.

F. *Contractor's pollution liability insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

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of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.

H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.

I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:

1. include at least the specific coverages provided in this Article.

2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.

3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.

4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.

5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.

J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

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6.04 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."

2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.

3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.

4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

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5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).

6. extend to cover damage or loss to insured property while in transit.

7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

8. allow for the waiver of the insurer's subrogation rights, as set forth below.

9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.

10. not include a co-insurance clause.

11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.

12. include performance/hot testing and start-up.

13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.

B. *Notice of Cancellation or Change*: All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

C. *Deductibles*: The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.

D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

E. *Additional Insurance*: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.

F. *Insurance of Other Property*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

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6.06 *Waiver of Rights*

A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.

D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

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policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and

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guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 *"Or Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

3) it has a proven record of performance and availability of responsive service; and

4) it is not objectionable to Owner.

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times; and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

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D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.

E. *Treatment as a Substitution Request*: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

a. shall certify that the proposed substitute item will:

1) perform adequately the functions and achieve the results called for by the general design,

2) be similar in substance to that specified, and

3) be suited to the same use as that specified.

b. will state:

1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,

2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

c. will identify:

1) all variations of the proposed substitute item from that specified, and

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2) available engineering, sales, maintenance, repair, and replacement services.

d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.

B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.

C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.

D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

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E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.

F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.

G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.

I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.

J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.

K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.

L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.

N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

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O. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

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7.09 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;

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2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or

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exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements*:

1. Before submitting a Shop Drawing or Sample, Contractor shall have:

a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

B. *Submittal Procedures for Shop Drawings and Samples*: Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings*:

a. Contractor shall submit the number of copies required in the Specifications.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to

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provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples*:

   a. Contractor shall submit the number of Samples required in the Specifications.

   b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Other Submittals*: Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. *Engineer's Review*:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.

3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.

5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.

6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

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8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures*:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal;

6. the issuance of a notice of acceptability by Engineer;

7. any inspection, test, or approval by others; or

8. any correction of defective Work by Owner.

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D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.

B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop

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Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

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8.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;

2. an itemization of the specific matters to be covered by such authority and responsibility; and

3. the extent of such authority and responsibilities.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.

C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

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D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.

B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

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9.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.

B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during

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or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.

B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.

C. Engineer's authority as to Change Orders is set forth in Article 11.

D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

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B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

1. *Change Orders*:

a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.

b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.

2. *Work Change Directives*: A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

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adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.

B. An adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on

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the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.

B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

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the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures*: Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.

2. *Engineer's Action*: Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

3. *Binding Decision*: Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

B. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and

4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

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B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 *Claims*

A. *Claims Process*: The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:

1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;

2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and

3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.

B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.

D. *Mediation*:

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim

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submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable

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thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

    a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

    b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

    c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

    d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

    e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

    f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes

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other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded*: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*: When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

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B. *Cash Allowances*: Contractor agrees that:

1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.

E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;

2. there is no corresponding adjustment with respect to any other item of Work; and

3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

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ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.

B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;

2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;

3. by manufacturers of equipment furnished under the Contract Documents;

4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

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cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.

B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. *Notice of Defects*: Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

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B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.

2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will

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include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

A. *Basis for Progress Payments*: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. *Applications for Payments*:

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*:

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

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a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or

b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

a. to supervise, direct, or control the Work, or

b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or

e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

a. the Work is defective, requiring correction or replacement;

b. the Contract Price has been reduced by Change Orders;

c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

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e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner*:

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

c. Contractor has failed to provide and maintain required bonds or insurance;

d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

f. the Work is defective, requiring correction or replacement;

g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

h. the Contract Price has been reduced by Change Orders;

i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;

j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;

k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

l. there are other items entitling Owner to a set off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount

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remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

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E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.

2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

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inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

   a. all documentation called for in the Contract Documents;

   b. consent of the surety, if any, to final payment;

   c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

   d. a list of all disputes that Contractor believes are unsettled; and

   e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance*:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work*: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due*: Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

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including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such other adjacent areas;

2. correct such defective Work;

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

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E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);

2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;

3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or

4. Contractor's repeated disregard of the authority of Owner or Engineer.

B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and

2. enforce the rights available to Owner under any applicable performance bond.

C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses,

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and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for

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expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

A. *Disputes Subject to Final Resolution*: The following disputed matters are subject to final resolution under the provisions of this Article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and

2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.

B. *Final Resolution of Disputes*: For any dispute subject to resolution under this Article, Owner or Contractor may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or

2. agree with the other party to submit the dispute to another dispute resolution process; or

3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

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18.04 *Limitation of Damages*

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

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SECTION 00800

SUPPLEMENTAL CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC No. C-700, 2013 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not specifically amended or supplemented hereby remain in full force and effect.

ARTICLE 1. DEFINITIONS AND TERMINOLOGY

SC-1.01.A.13

Add the following language at the beginning of the definition entitled "Contract Documents" in the General Conditions:

The Invitation to Bid, Instructions to Bidders

SC-1.01.A.28

Add the following language to the definition entitled "Owner" in the General Conditions:

The “Owner” shall mean the Town of Easton, Massachusetts acting through its Select Board. Also referred to as “Town,” “Awarding Authority” or “contracting authority” in applicable statutory provisions which may be used interchangeably and shall have the same meaning.

SC-1.01.A.40

Add the following language at the end of the definition:

> For the purposes of MGL Chapter 30, Section 39G, *Completion of public works; semi-final and final estimates; payments*; *extra work; disputed items*, Substantial Completion shall also mean either that the Work has been completed except for Work having a valued at less than 1 percent of the then adjusted total Contract Price, or substantially all of the Work has been completed and opened to public use except for minor incomplete or unsatisfactory Work items that do not materially impair the usefulness of the Work as required by the Contract.

SC-1.01.A.49

Add the following definition to the General Conditions:

“State” shall mean the Commonwealth of Massachusetts.

SC-1.01.A.50

Add the following definition to the General Conditions:

"Project Closeout Documents" shall mean, Complete As-Built Drawings; Complete Set of Technical Specifications; Operations & Maintenance Manuals in electronic format; Warranties; Project submittals and shop drawings; Commissioning and systems testing reports; Threshold Inspection reports; Executed Substantial/Final Completion forms; LEED documentation; Test & Balance Report; or other documents as requested by the Owner or Engineer.

SC-1.01.A.51 Add the following new definition.

"material or Material -- As used in MGL Chapter 30, Section 39M, Contracts for construction and materials; manner of awarding, regarding items equal to those specified, the word "material" shall mean and include any article, assembly, system, included in the Work, or any component part thereof.

ARTICLE 2. PRELIMINARY MATTERS

SC-2.01.C

Delete this paragraph

SC-2.01.D

Add a new paragraph immediately after paragraph 2.01.C of the General Conditions, which is to read as follows:

D. Non-Resident Contractor: The CONTRACTOR, if a corporation established under laws other than the State in which the proposed construction is located, shall file with the OWNER, notice of the name of its resident attorney-in-fact, appointed as required by the laws of the State in which the proposed construction is located. The CONTRACTOR, if a resident of a State other than that in which the proposed construction is located and not a corporation, shall file, at the time of execution of the Agreement, with the OWNER a written appointment of a resident of the State in which the construction is located, having an office or place of business therein, to be his true and lawful attorney upon whom all lawful processes in any actions or proceedings against him may be served; and in such writing, which shall set forth said attorney's place of residence, shall agree that any lawful process against him which is served on said attorney shall be of the same legal force and validity as if served on him and that the authority shall continue in force so long as any liability remains outstanding against him in said State. The power of attorney shall be filed in the office of the Secretary of the State if required, and copies certified by the Secretary shall be sufficient evidence thereof. Such appointment shall continue in force until revoked by an instrument in writing, designating in a like manner some other person upon whom such processes may be served, which instrument shall be filed in the manner provided herein for the original appointment.

SC-2.05

Add the following paragraphs immediately after paragraph 2.05.A.3 of the General Conditions which is to read as follows:

2.05.A.4 Before any work at the site is started, CONTRACTOR shall deliver to OWNER, with a copy to ENGINEER, certificates of insurance (and other evidence of insurance requested by OWNER) which CONTRACTOR is required to purchase and maintain in accordance with the requirements of Article 6.

2.05.A.5 Contractor shall include and identify on the certificate of insurance, indemnification as required by Article 7.18.

ARTICLE 3. DOCUMENTS: INTENT, REQUIREMENTS, REUSE

SC-3.01

Add the following paragraphs immediately after paragraph 3.01.A of the General Conditions which is to read as follows:

3.01.A.1 Each and every provision of law and clause required by law to be inserted in the Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though they were included herein. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

3.01.A.2 Sections of Division 1 - General Requirements govern the execution of the work of all sections of the specifications.

SC-3.02.A.1

Delete the portion of the paragraph starting at "shall mean" through the end of this sentence and insert the following:

"shall mean the standard, specification, manual, code, or Laws or Regulations in effect and applicable at the time in question, except as may be otherwise specifically stated in the Contract Documents."

SC-3.03.A.3

Delete Paragraph 3.03.A.3 in its entirety and insert the following:

"CONTRACTOR shall be liable to OWNER and/or ENGINEER for failure to report any such conflict, error, ambiguity or discrepancy if Contractor knew or reasonably should have known thereof."

ARTICLE 4. COMMENCEMENT AND PROGRESS OF THE WORK

SC 4.01

Delete paragraph 4.01 in its entirety and insert the following in its place:

4.01 The Contract Time will commence to run on the day indicated in the Notice to Proceed.

SC-4.03.A

Add a new paragraph at the end of paragraph 4.03.A of the General Conditions which is to read as follows:

"4.03.B ENGINEER may check the lines, elevations, reference marks, batter boards, etc., set by CONTRACTOR, and CONTRACTOR shall correct any errors disclosed by such check. Such a check shall not be considered as approval of CONTRACTOR's work and shall not relieve CONTRACTOR of the responsibility for accurate and satisfactory construction and completion of the entire Work. CONTRACTOR shall furnish personnel to assist ENGINEER in checking lines and grades."

SC-4.04

Add the following paragraph after paragraph 4.04.A.2 of the General Conditions:

"3. The CONTRACTOR's resident superintendent shall attend monthly progress meetings at the site of the work with the ENGINEER and others as appropriate to review schedule status and such other pertinent subjects as may be listed on the agenda by the ENGINEER."

SC- 4.05.A
At the beginning of the first sentence, insert the following: “In accordance with G.L. c. 30, §39O, …”

In the first sentence, strike the word “shall” and replace with “may”.

Delete the last sentence entirely.

SC-4.05.G

Delete Paragraph 4.05.G and insert the following in its place:

“Delays caused by or within the control of the OWNER: In such event and except as provided in G.L. c. 30, §39O the CONTRACTOR’S sole remedy shall be an extension of the Contract Time. Except as provided in G.L.c. 30, §39O CONTRACTOR shall not be eligible for any increase in the Contract Price on account of any delay in the Work, no matter by whom such delay is caused, and CONTRACTOR shall make no claim for such an increase, whether such claim is styled as a claim for delay damages, acceleration of work, loss of production, or otherwise.”

ARTICLE 5. AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

SC-5.03

In paragraph 5.03.B insert the word “reasonably” before the word “rely” in the first line and insert the following at the end of the first sentence:

“; the OWNER does not warrant or guarantee the accuracy or completeness of the information therein, and the CONTRACTOR may not so rely to the extent that the CONTRACTOR knows, or reasonably should have known, of any inaccuracy or omission therein.

SC-5.04

Insert the following paragraph before Paragraph 5.04.A

“5.04 Differing Subsurface or Physical Conditions

In accordance with Massachusetts General Laws Chapter 30, Section 39N, if, during the progress of the Work, the CONTRACTOR or the OWNER discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the Contract Documents either the CONTRACTOR or the OWNER may request an equitable adjustment in the Contract Price applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such request to the other

party as soon as possible after such conditions are discovered. Upon receipt of such a request from the CONTRACTOR, or upon its own initiative, the OWNER will make an investigation of such physical conditions, and if they differ substantially or materially from those shown on the plans or indicated in the Contract Documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and Contract Documents and are of such a nature as to cause an increase or decrease in the cost of performance of the Work or a change in the construction methods required for the performance of the Work which results in an increase or decrease in the cost of the Work, the OWNER will make an equitable adjustment in the Contract Price and the Contract shall be modified in writing accordingly."

SC-5.04.D.1

Add a new paragraph immediately after paragraph 5.04.D of the General Conditions which is to read as follows:

"5.04.E Adjustments resulting from actual subsurface or latent physical conditions from those indicated will be in accordance with Massachusetts General Law, Chapter 30, Section 39N and the applicable provisions of the Contract Documents."

SC-5.05.A

Insert the following new paragraph immediately after Paragraph 5.05.A.2:

"3. CONTRACTOR's attention is directed to the requirements of Massachusetts General Laws Chapter 82, Section 40A, regarding the notification of owners of underground facilities."

SC-5.05.B

Delete the phrase "or was not shown or indicated with reasonable accuracy" following the words "Contract Documents" in the first sentence of Paragraph 5.05.B, 5.05.C and 5.05.D.

SC-5.06.B

Delete Paragraph 5.06.B in its entirety.

SC-5.06.C

Add the following at the end of Paragraph 5.06.C: ",or unless CONTRACTOR caused or contributed to such Hazardous Environmental Condition."

SC-5.06.E

Delete the second and third sentences of Paragraph 5.06.E.

SC-5.06.I

Delete Paragraph 5.06.I in its entirety.

SC-5.06.J

Delete the last sentence of Paragraph 5.06.J.

ARTICLE 6. BONDS AND INSURANCE

SC 6.01 Performance, Payment, and Other Bonds: Add the following new subparagraphs immediately after Paragraph 6.01.A

1. Pursuant to MGL Chapter 30, Section 39A*, Construction contracts for public ways, airports or public works; truck rentals; security for payment,* and MGL Chapter 149, Section 29, *Bonds for payment for labor, materials, rentals or transportation charges (et al),* the required payment bond shall also cover payment by the Contractor and Subcontractors for the rental or hire of dump trucks and "the rental or hire of vehicles, steam shovels, rollers propelled by steam or other power, concrete mixers, tools and other appliances and equipment employed in such construction," and for payment of transportation charges directly related to such rental or hire. Such security for payment of transportation charges shall be incorporated by appropriate reference thereto as an additional obligation or condition in the required bonds.

2. In addition, such bonds shall cover payment by Contractor and Subcontractors of any sums due trustees or other persons authorized to collect such payments from the Contractor or Subcontractors, for health and welfare plans, supplementary unemployment benefit plans and other fringe benefits which are payable in cash and provided for in collective bargaining agreements between organized labor and the Contractor or Subcontractors.

SC-6.01.G Add the following new paragraph immediately after 6.01.F:

" G. If there is more than one surety company, the surety companies shall be jointly and severally liable."

SC-6.02

Delete Paragraph 6.02.D in its entirety.

Add a new paragraph immediately after paragraph 6.02.J of the General Conditions which is to read as follows:

"K. If OWNER has any objection to the coverage afforded by or other provisions of the insurance purchased and maintained by CONTRACTOR in accordance with this Article 6 on the basis of its not complying with the Contract Documents, OWNER will notify CONTRACTOR in writing thereof within thirty days of the date of delivery of such certificates to OWNER in accordance with paragraph 2.01.B CONTRACTOR will provide such additional information in respect of insurance provided by him as OWNER may reasonably request."

SC-6.03

The limits of liability for the insurance required by paragraph 6.03 of the General Conditions shall provide the following coverages for not less than the following amounts or greater where required by Laws and Regulations:

6.03.A Workers' Compensation.

(1)	Worker's Compensation	$1,000,000	
(2)	Employer's Liability	$1,000,000	

6.03.B and 6.03.C Comprehensive General Liability including Operations/Premises, Contractor's Protective, Products/Completed Operations, and Personal Injury liabilities:

(1)	Bodily injury:	$1,000,000 $3,000,000	Each occurrence Annual aggregate
(2)	Property damage, including explosion, collapse and underground coverage: Property damage liability insurance shall provide coverage for property in the care, custody and control of the insured.	$1,000,000 $3,000,000	Each occurrence Annual aggregate
(3)	Personal injury, with employment exclusion deleted:	$3,000,000	Annual aggregate

The Contractual Liability required by paragraph 6.03.C of the General Conditions shall provide coverage for not less than the following amounts:

(1)	Bodily injury:	$2,000,000 $3,000,000	Each occurrence Annual aggregate
(2)	Property damage, including explosion, collapse and underground coverage:	$1,000,000 $3,000,000	Each occurrence Annual aggregate
(3)	General Aggregate	$2,000,000	

6.03.D Comprehensive Automobile Liability including owned, hired and non-owned vehicles:

(1)	Bodily injury:	$1,000,000 $1,000,000	Each person Each accident
(2)	Property damage	$1,000,000	Each occurrence

SC-6.03.I.3 Delete the words “materially changed” per MA insurance law.

SC-6.04

Delete paragraph 6.04 of the General Conditions in its entirety and insert the following in its place:

6.04.A CONTRACTOR shall purchase and maintain a separate Owner's Protective Liability policy, issued to OWNER at the expense of CONTRACTOR, including OWNER and ENGINEER as named insured. This insurance shall provide coverage for not less than the following amounts:

6.04.A.1	Bodily Injury:	
	Each Occurrence	$1,000,000
6.04.A.2	Property Damage:	
	Each Occurrence	$1,000,000
	Annual Aggregate	$1,000,000

SC-6.05

Delete paragraph 6.05.B of the General Conditions in its entirety and insert the following in its place:

"B. CONTRACTOR will provide at least thirty days' prior written notice to OWNER by certified mail prior to canceling coverage afforded under all the policies of insurance (or the certificates or other evidence thereof) required to be purchased and maintained by CONTRACTOR in accordance with paragraphs 6.05. If the renewal of any policy of insurance is refused, CONTRACTOR shall provide OWNER immediate written notice thereof, and take all reasonable steps to procure replacement insurance in accordance with the requirements of the Contract Documents. If CONTRACTOR is unable to obtain replacement insurance within ten (10) days of notice of non-renewal is given to OWNER, OWNER shall be entitled to obtain the required insurance and all costs associated therewith will be processed in accordance with Article 11.

SC-6.05.D

Delete Paragraph 6.05.D in its entirety and insert the following:

“OWNER may occupy or use a portion of the Work prior to Substantial Completion.”

SC-6.06.C

Delete Paragraph 6.06.C in its entirety and replace with the following:

“The CONTRACTOR shall pay for all costs not covered because of the application of a policy deductible due under any of its insurance policies required hereunder.”

SC-6.07

Delete paragraph 6.07.A of the General Conditions in its entirety.

Delete paragraph 6.07.B of the General Conditions in its entirety.

Delete paragraph 6.07.C of the General Conditions in its entirety.

ARTICLE 7. CONTRACTOR'S RESPONSIBILITIES

SC-7.01

Add the following new paragraph as follows:

"7.01.C The site superintendent may be a direct employee of the subcontractor provided that this individual has the full authority and responsibility of the general contractor's specified superintendent. The General Contractor shall submit a letter to the Owner and the Engineer stating who the supervisor is and defining his/her authority during all construction related activities."

SC-7.02.C – 7.02.G

Insert the following new paragraphs immediately after Paragraph 7.02.B:

"C. Regular working hours are defined as Monday through Friday, excluding holidays, between the hours of 7:00 AM and 5:00 PM. Requests to work other than regular working hours shall be submitted to ENGINEER not less than 48 hours prior to any proposed change. Occasional unscheduled overtime on weekdays may be permitted provided it is approved by ENGINEER."

"D. CONTRACTOR shall reimburse the OWNER for additional engineering and/or inspection costs incurred as a result of overtime work in excess of the regular working hours stipulated in Paragraph SC-7.02.C. At OWNER's option, overtime costs may either be deducted from the CONTRACTOR's monthly payment or deducted from the retainage held by OWNER until release of final payment. Overtime costs for the OWNER's personnel shall be based on the individual's current overtime wage rate. Overtime costs for personnel employed by the ENGINEER or OWNER's independent testing laboratory shall be calculated in accordance with the terms of their respective contracts with the OWNER."

"E. This agreement is subject to the applicable provisions of the Contract Work Hours and Safety Standards Act, Public Law 87-581 87th Congress. No Contractor or Subcontractor contracting for any part of the Work shall require or permit any laborer or mechanic to be employed on the Work in excess of forty hours in any work week unless such laborer or mechanic receives compensation at a rate not less than one and one-half times that person's basic rate of pay for all hours worked in excess of forty hours in such work week."

"F. CONTRACTOR and Subcontractors shall, insofar as practicable, give preference in the hiring of workers for the Project to qualified local residents with first preference being given to citizens of the United States who have served in the armed forces of the United States and have been honorably discharged therefrom or released from active duty therein.

"G. CONTRACTOR shall employ only competent persons to do the work and whenever OWNER shall notify CONTRACTOR, in writing, that any person on the Work appears to be incompetent, disorderly, or otherwise unsatisfactory, such person shall be removed from the Project and shall not again be employed on it except with the consent of OWNER."

"H. CONTRACTOR shall provide and maintain sanitary facilities for all persons employed on the Work, beginning with the first worker at the Site. Said facilities shall meet the following requirements unless otherwise specified in the Supplementary General Conditions or Specifications.

1. There shall be no fewer facilities than the number required by applicable Laws;

2. Facilities shall be kept in a clean sanitary condition at all times and shall be adequately screened to be inaccessible to flies. (Note: If existing sanitary facilities at the Site are to be used by the Contractor, this requirement will be modified accordingly in the Supplementary General Conditions or Specifications.)"

SC-7.04.A

Insert the following at the end of the third sentence of Paragraph 7.04.A: ", and in accordance with G.L. c.30, §39M."

Add a new paragraph SC-7.04.A.1.c immediately after paragraph 7.04A.1.b, which is to read as follows:

"c. It shall be CONTRACTOR's responsibility to coordinate all submittals to ENGINEER for approval to eliminate any conflicts which might arise due to the use of "or equal" items. Any additional costs incidental to the use of "or equal" items shall be paid by CONTRACTOR."

SC-7.06

Add the following to Paragraph 7.06.A:

"CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization, (including those who are to furnish the principal items of materials or equipment), whether initially or as a substitute, against whom OWNER makes reasonable objection. Acceptance of any Subcontractor, other person or organization by OWNER shall not constitute a waiver of any right of OWNER to reject defective Work."

7.06.H.1

Add the following paragraph immediately after paragraph 7.06.H:

1. CONTRACTOR shall make payments to Subcontractors in accordance with Massachusetts General Laws Chapter 30, Section 39F."

Add the following new paragraph as follows:

"7.06.J.1 OWNER or ENGINEER may furnish to any such Subcontractor, Supplier, or other person or organization, to the extent practicable, information about amounts paid to CONTRACTOR in accordance with CONTRACTOR's Applications for Payment on account of the particular Subcontractor's, Suppliers, other person's, or other organization's Work."

SC-7.07.A

Delete the second sentence of Paragraph 7.07.A.

SC-7.07.B

Delete this subparagraph.

SC-7.09

Add the following language at the end of paragraph 7.09.A of the General Conditions:

"7.09.A.1 The materials and supplies to be used in the Work under this Contract are exempt from the Sales and Use Tax of the Commonwealth of Massachusetts. Contractor shall obtain the proper certificates, maintain the necessary records, and otherwise comply with all applicable requirements governing the exemption from sales tax. The Contractor shall be responsible for paying all other taxes and tariffs of any sort related to the Work."

SC-7.10C

Delete the last sentence of Paragraph 7.10C.

SC-7.11 Add the following new paragraph and subparagraphs immediately after Paragraph 7.11.A.

B. Subject to the provisions of MGL Chapter 266, Section 67C, *Capital facility construction projects, etc.; false entries in records; penalties,* and pursuant to MGL Chapter 30, Section 39R*, Definitions; contract provisions; management and financial statements; enforcement:*

> ". . .(1) The Contractor shall make, and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the Contractor, and
>
> "(2) until the expiration of six years after final payment, the office of inspector general, and the commissioner of capital asset management and maintenance shall have the right to examine any books, documents, papers or records of the Contractor or of his Subcontractors that directly pertain to, and involve transactions relating to, the Contractor or his Subcontractors, and
>
> "(3) if the agreement is a contract as defined herein, the Contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the Awarding Authority, including in his description the date of the change and reasons therefor, and shall accompany said description with a letter from the Contractor's independent certified public accountant approving or otherwise commenting on the changes, and
>
> "(4) if the agreement is a contract as defined herein, the Contractor has filed a statement of management on internal accounting controls as set forth in paragraph (c) below prior to the execution of the contract, and
>
> "(5) if the agreement is a contract as defined herein, the Contractor has filed prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in paragraph (d) below.

"(c) Every Contractor awarded a contract shall file with the Awarding Authority a statement of management as to whether the system of internal accounting controls of the Contractor and its subsidiaries reasonably assures that:

"(1) transactions are executed in accordance with management's general and specific authorization;

"(2) transactions are recorded as necessary
i. to permit preparation of financial statements in conformity with generally accepted accounting principles, and
ii. to maintain accountability for assets;

"(3) access to assets is permitted only in accordance with management's general or specific authorization; and

"(4) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference. Every Contractor awarded a contract shall also file with the Awarding Authority a statement prepared and signed by an independent certified public accountant, stating that he has examined the statement of management on internal accounting controls, and expressing an opinion as to (1) whether the representations of management in response to this paragraph and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and (2) whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.

"(d) Every Contractor awarded a contract by the commonwealth or by any political subdivision thereof shall annually file with the commissioner of capital asset management and maintenance during the term of the contract a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report. Such statements shall be made available to the Awarding Authority upon request.

"(e) . . . A Contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to section forty-four C of chapter one hundred and forty-nine.

"(f) Records and statements required to be made, kept or filed under the provisions of this section shall not be public records as defined in section seven of chapter four and shall not be open to public inspection; provided, however, that such records and statements shall be made available pursuant to the provisions of clause (2) of paragraph (b)."

SC-7.11.B – C

Insert the following new paragraphs immediately after Paragraph 7.11.A:

"B. The CONTRACTOR shall return to the ENGINEER one set of the Contract Drawings marked in colored pencil, showing all changes made during construction and including the location, by dimensions and elevations, of installed equipment, and underground facilities that will become concealed or buried by the construction. This shall include ties to all concealed work, etc. measured from permanent structures. Additionally, the CONTRACTOR shall be required to keep marked-up drawings current and on site and to provide mark-ups to the OWNER on a monthly basis.

C. CONTRACTOR shall comply with all applicable provisions of Chapter 30, Section 39R of the Massachusetts General Laws regarding CONTRACTOR's records."

SC-7.12.E

Delete the text in parentheses in Paragraph 7.12.E.

SC-7.16

Add the following new paragraph immediately after paragraph 7.16.E of the General Conditions, which is to read as follows:

"7.16.F The accuracy of all such information submitted by the Contractor is the responsibility of the Contractor. In reviewing Shop Drawings, Samples, and similar submittals, the Engineer shall be entitled to rely upon the Contractor's representation that such information is correct and accurate."

SC-7.17.E

Add the following new paragraph 7.17.E, immediately after paragraph 7.17.D of the General Conditions:

"E. CONTRACTOR shall guarantee all materials and equipment furnished and Work performed for a period of one (1) year from the date of Substantial Completion. CONTRACTOR warrants and guarantees for a period of one (1) year from the date of Substantial Completion that the completed Work is free from all defects due to faulty materials or workmanship and CONTRACTOR shall promptly make such corrections as may be necessary by reason of any such defects including the repairs of any damage to other parts of the Work resulting from such defects. In the event that CONTRACTOR should fail to make such repairs, adjustments, or other work that may be made necessary by such defects, OWNER may do so and charge CONTRACTOR the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period."

SC-7.18.A

Delete the phrase in parentheses: "(other than the Work itself)" in Paragraph 7.18.A.

Change the phrase "negligent act or omission" to "negligent or willful or wrongful act or omission."

SC-7.18.B

Insert the following at the end of Paragraph 7.18.B:

"If, through the acts or neglect of CONTRACTOR, any other Contractor or any Subcontractor shall suffer loss or damage on the Work, CONTRACTOR shall settle with such other Contractor or Subcontractor by agreement if such other Contractor or Subcontractor will so settle. If such other Contractor or Subcontractor shall assert any claim against OWNER on account of any damage alleged to have been sustained, OWNER shall notify CONTRACTOR, who shall indemnify and hold harmless OWNER against any such claims."

ARTICLE 8. OTHER WORK AT THE SITE

SC-8.02

Delete Paragraph 8.02 in its entirety and replace with the following:

> "OWNER may contract with others for performance of work at the Site. CONTRACTOR will be responsible for the coordination of the performance of its Work at the Site.

SC-8.03

Delete paragraph 8.03.D of the General Conditions in its entirety, and insert the following in its place:

"8.03.D Should CONTRACTOR cause damage to the work or property of any separate contractor at the site, or should any claim arising out of CONTRACTOR'S performance of the Work at the site be made by any separate contractor against CONTRACTOR, OWNER, ENGINEER, ENGINEER'S Consultants, or any other person, CONTRACTOR shall promptly attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute by arbitration or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold OWNER, ENGINEER, and ENGINEER'S Consultants, harmless from and against all claims, damages, losses, and expenses (including, but not limited to, fees of engineers, architects, attorneys, and other professionals, and court and arbitration costs) arising directly, indirectly, or consequentially out of any action, legal or equitable, brought by any separate contractor against OWNER, ENGINEER, or ENGINEER'S Consultants, to the extent based on a claim arising out of the CONTRACTOR'S performance of the Work. Should a separate contractor cause damage to the Work or property of CONTRACTOR or should the performance of Work by any separate contractor at the site give rise to any other claim, CONTRACTOR shall not institute any action, legal or equitable, against OWNER, ENGINEER, or ENGINEER'S Consultants or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from OWNER, ENGINEER, or ENGINEER'S Consultants, on such action or claim. If CONTRACTOR is delayed at any time in performing or furnishing Work by any act or neglect of a separate contractor and OWNER and CONTRACTOR are unable to agree to the extent of any adjustment in Contract Times attributable thereto, CONTRACTOR may make a claim for an extension of times in accordance with Article 12.02. An extension of the Contract Times shall be CONTRACTOR'S exclusive remedy with respect to OWNER, ENGINEER, and ENGINEER'S Consultants, for any delay, disruption, interference or hindrance caused by any separate contractor. This paragraph does not prevent recovery from OWNER, ENGINEER, or ENGINEER'S Consultant, for activities that are their respective responsibilities."

ARTICLE 9. OWNER'S RESPONSIBILITIES

SC-9.02.A

Delete the phrase “provided Contractor makes no reasonable objection to the replacement engineer” in Paragraph 9.02.A.

SC-9.06

Delete paragraph 9.06 of the General Conditions in its entirety.

SC-9.09

Insert the following after the first sentence of Paragraph 9.09.A:

“However, the OWNER shall have the right to direct the CONTRACTOR to perform the Work according to any sequence schedule set forth in the Contract Documents or established pursuant thereto.”

ARTICLE 10. ENGINEER'S STATUS DURING CONSTRUCTION

SC-10.01

Add a new paragraph 10.01.B after paragraph 10.01.A of the General Conditions, which is to read as follows:

"B. Nothing contained in the Contract Documents shall be construed to create a contractual relationship of any kind (1) between the ENGINEER and CONTRACTOR, (2) between the OWNER and a Subcontractor or Subcontractors, or (3) between any person or entities other than the OWNER and CONTRACTOR. The ENGINEER shall, however, be entitled to performance and enforcement of obligations under the CONTRACT DOCUMENTS intended to facilitate performance of the ENGINEER'S duties."

SC-10.02B

Insert the following at the end of Paragraph 10.02.B:

“However, the ENGINEER shall have the right to direct the CONTRACTOR to perform the Work according to any sequence schedule set forth in the Contract Documents or established pursuant thereto.”

SC-10.03

Delete the last sentence of Paragraph 10.03.A

Add a new paragraph immediately after paragraph 10.03.A of the General Conditions as follows:

“10.03.B ENGINEER will furnish a Resident Project Representative and assistants to assist ENGINEER in observing the performance of the Work. The duties and responsibilities of the Resident Project Representative will be as enumerated in a document entitled "Duties, Responsibilities, and Limitations of the Authority of Resident Project Representative" and will be made available to CONTRACTOR at the start of his work.”

SC-10.08.B

Insert the following after the first sentence in Paragraph 10.08.B:

"However, the ENGINEER shall have the right to direct the CONTRACTOR to perform the Work according to any sequence schedule set forth in the Contract Documents or established pursuant thereto."

SC-10.08.F

Add a new paragraph immediately after paragraph 10.08.E of the General Conditions which is to read as follows:

"ENGINEER'S interpretations will be made in accordance with Massachusetts General Laws Chapter 30, Section 39P."

ARTICLE 11. AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

SC-11.02

Add a new paragraph immediately after paragraph 11.02.A of the General Conditions which is to read as follows:

"11.02.A.1 ENGINEER'S interpretations will be made in accordance with Massachusetts General Law, Chapter 30, Section 39P."

SC-11.02

Add the following new paragraph immediately after paragraph 11.02.A of the General Conditions, which is to read as follows:

"11.02.B Upon request of the Owner or Engineer, the Contractor shall without cost to the Owner submit to the Engineer, in such form as the Engineer may require, an accurate written estimate of the cost of any such proposed extra Work or change. The estimate shall indicate the quantity and unit cost of each item of materials, and the number of hours of work and hourly rate for each class of labor, as well as the description and amounts of all other costs chargeable under the terms of this Article. Unit labor costs for the installation of each item of materials shall be shown if required by the Engineer. The Contractor shall promptly revise and resubmit such estimate if the Engineer determines that it is not in compliance with the requirements of this Article, or that it contains errors of facts or mathematical errors. If required by the Engineer, in order to establish the exact cost of new Work added or previously required Work omitted, the Contractor shall obtain and furnish to the Engineer bona fide proposals from recognized suppliers for furnishing any material included in such Work, and shall be furnished at Contractor's expense. The Contractor shall state in the estimate any extension of time required for the completion of the Work if the change or extra work is ordered."

SC-11.04

In paragraph 11.04.C.2.a change "15 percent" to "10 percent".

Delete paragraph 11.04.C.2.c

ARTICLE 12. CLAIMS

SC-12.01

Add a new paragraph immediately after paragraph 12.01.D.1 of the General Conditions to read as follows:

"12.01.D.1.a CONTRACTOR shall carry on the Work and maintain the progress schedule during the dispute resolution proceedings unless otherwise agreed in writing by OWNER and CONTRACTOR."

ARTICLE 13. COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

SC-13.01

Add the following to the end of paragraph 13.01.B of the General Conditions to read as follows:

"Following the Notice of Award and prior to the execution of the AGREEMENT the OWNER, prospective contractor and, if any, each prospective filed subbid contractor shall agree on what percentage markup shall be used as direct labor costs in determination of extra work costs."

In the second sentence of paragraph 13.01.B.1 delete the word "superintendents".

SC-13.01.B.5

Delete subparagraphs a, d, e, f, g, and h of Paragraph 13.01.B.5.

SC-13.02

Delete paragraph 13.02 of the General Conditions in its entirety.

SC-13.03.E

Delete Paragraph 13.03.E in its entirety.

ARTICLE 14. TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

SC-14.02.F

Delete the remainder of Paragraph 14.02.F after the words "Contractor's expense."

SC-14.05.C.2

Delete Paragraph 14.05.C.2 in its entirety.

SC-14.06.B

Insert the following new paragraph immediately after Paragraph 14.06.A:

"B. If Owner stops Work under paragraph 14.06.A, CONTRACTOR shall not be entitled to any extension of Contract Time or increase in Contract Price, except as may be provided under G.L. c. 30, §39O."

ARTICLE 15. PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

SC-15.01

Delete the first phrase prior to the words "Contractor shall" in the first sentence of Paragraph 15.01.B.1 and insert the following:

"On a monthly basis and in accordance with G.L. c.30, §39G,".

Add new paragraphs immediately after paragraph 15.01.B.1 of the General Conditions to read as follows:

"15.01.B.1.a Any items of material and equipment accepted for delivery at the site or at a local bonded warehouse and included in progress estimates in advance of actual requirement, shall be subject to all conditions stated below.

15.01.B.1.b Materials and equipment listed above will not be included in progress estimates until the requirements stated herein have been fulfilled.

15.01.B.1.c The Contractor must present an invoice to the Engineer for each item of material or equipment he is requesting payment for. The invoice must be broken down to show the costs for the actual equipment, and reasonable costs for O&M Manuals, spare parts, start-up certification, training, testing, final acceptance testing, and any other services required by Contract.

15.01.B.1.d Sufficient monies have been allocated in the payment requisition line items to cover all of the costs listed in "a" above, plus the costs of physically installing the equipment.

15.01.B.1.e The equipment has been submitted and approved for use in this Project.

15.01.B.1.f The Contractor has, at the time of delivery, given the Engineer written notice of the delivery using the form provided by the Engineer.

15.01.B.1.g The equipment is acceptably stored and protected. Storage in a bonded warehouse will require proof of bonding, and insurance coverage specifically for the item being stored.

15.01.B.1.h The manufacturer's short and/or long term storage requirements have been received by the Engineer, prior to payment.

15.01.B.1.i The Contractor has established a program to implement the manufacturer's required storage procedures. Said program to consist of at the very least a written schedule of daily, weekly, monthly, routine maintenance requirements for each piece of equipment. A copy of this schedule to be presented to the

Engineer prior to each requisition submittal, signed by the Contractor, stating that the required maintenance has been performed.

15.01.B.1.j Signed, notarized Title Transfers, format to be furnished by the Engineer, must be furnished for each item of equipment.

15.01.B.1.k When the above have been complied with to the satisfaction of the Engineer, payment will be authorized for the full invoice values of the item of equipment, less normal retainage and less all costs for O&M Manuals, spare parts, start-up certification, training, testing, final acceptance testing, and installation."

Delete paragraph 15.01.B.3 and insert the following in its place:

"15.01.B.3. Retainage with respect to progress payments will be five percent or, if stipulated, the maximum allowed by law."

SC-15.01.B.4

Insert the following new paragraph immediately after Paragraph 15.01.B.3:

"4. CONTRACTOR shall furnish evidence that payment received on the basis of materials and equipment not incorporated and suitably stored, has in fact been paid to the respective supplier(s) within ten (10) days of payment by OWNER. Failure to provide such evidence of payment may result in the withdrawal of previous approval(s) and removal of the cost of related materials and equipment from the next submitted Application for Payment.

SC-15.01.C.1

Delete Paragraph 15.01C.1 and insert the following:

"1. Progress Payments shall be made in accordance with Massachusetts General Laws, Chapter 30, Section 39G."

SC-15.01.D.1

Delete Paragraph 15.01.D.1 and insert the following:

"1. Payment shall be made in accordance with G.L. c.30, §39G."

SC-15.01.E.2

Delete the words "immediate" and "promptly" in the first sentence of Paragraph 15.01.E.2.

SC-15.01.E.3

Delete this Paragraph in its entirety.

SC-15.02

Insert the following new paragraphs immediately after Paragraph 15.02.A:

"B. No materials or supplies for the Work shall be purchased by CONTRACTOR or Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. CONTRACTOR warrants that CONTRACTOR has good title to all materials and supplies used by CONTRACTOR in the Work, free from all liens, claims or encumbrances."

"C. CONTRACTOR shall indemnify and save OWNER harmless from all claims growing out of the lawful demands of Subcontractors, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this Contract. CONTRACTOR shall, at OWNERS request, furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged, or waived. If CONTRACTOR fails to do so, then OWNER may, after having served written notice on the CONTRACTOR, either pay unpaid bills, of which OWNER has written notice, or withhold from the CONTRACTOR's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to CONTRACTOR shall be resumed, in accordance with the terms of this Contract, but in no event shall the provisions of this sentence be construed to impose any obligation upon OWNER to either CONTRACTOR, or CONTRACTOR's Surety. In paying any unpaid bills of the CONTRACTOR, OWNER's payment shall be considered as payment made under the Contract by OWNER to CONTRACTOR and OWNER shall not be liable to CONTRACTOR for any such payment made in good faith."

SC-15.03.C

Delete the third sentence of Paragraph 15.03.C and insert the following:

"OWNER may review the preliminary certificate and make written objection to ENGINEER as to any provisions of the certificate or attached list."

Delete the phrase ", within 14 days after submission of the preliminary certificate to OWNER," in the fourth sentence of paragraph 15.03.C.

Delete the phrase ", within said 14 days," in the fifth sentence of Paragraph 15.03.C.

SC 15.03.G

Insert the following new Paragraph 15.03.G immediately following 15.03.F

"G. Notification to Owner and Engineer of Substantial Completion shall include the delivery of the Project Closeout Documents."

SC-15.04.A

Delete the phrase "subject to the following conditions" at the end of the first sentence of Paragraph 15.04.A.

Delete Paragraph 15.04.A.2 in its entirety.

SC-15.06

Delete Paragraph 15.06.B.1 and insert the following:

"1. If, on the basis of ENGINEER's observations of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation, all as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will indicate in writing ENGINEER's recommendation of payment and present the Application for Payment to OWNER for payment. Thereupon ENGINEER will give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 15.07. Otherwise, ENGINEER will return the Application for Payment to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application for Payment. If the Application and accompanying documentation are appropriate as to form and substance, OWNER will, in accordance with the applicable provisions of Massachusetts General Laws, pay CONTRACTOR the amount recommended by the ENGINEER."

SC-15.06.D

Insert the following at the end of Paragraph 15.06.D:

"Final payment shall be made in accordance with G.L. c.30, §39G."

ARTICLE 16. SUSPENSION OF WORK AND TERMINATION

SC-16.01.A

Delete Paragraph 16.01.A in its entirety and insert the following:

"A. OWNER may suspend the work or any portion thereof in accordance with G.L. c.30, §39O."

SC-16.02.A.5

Insert new paragraph immediately after Paragraph 16.02.A.4:

"5. If CONTRACTOR abandons the Work, or sublets this Contract or any part thereof, without the previous written consent of OWNER, or if the Contract or any claim thereunder shall be assigned by CONTRACTOR otherwise than as herein specified."

SC-16.03.A.1

Delete the phrase "including fair and reasonable sums for overhead and profit on such Work" in Paragraph 16.03.A.1.

SC-16.03.A.2

Delete the phrase "plus fair and reasonable sums for overhead and profit on such expenses" in Paragraph 16.03.A.2.

SC-16.03.A.3

Delete Paragraph 16.03.A.3 in its entirety.

SC-16.04.B

Delete the last sentence of Paragraph 16.04.B.

ARTICLE 17. FINAL RESOLUTION OF DISPUTES

SC-17.01.C

Insert a new sub-paragraph after Paragraph 17.01.B:

"CONTRACTOR shall carry on the Work and maintain the progress schedule during the dispute resolution proceedings, unless otherwise agreed by CONTRACTOR and OWNER in writing."

SC-17.02

Add a new paragraph immediately after Paragraph 17.01 of the General Conditions which is to read as follows:

"17.02 Venue

Any legal action relating to this Contract shall be filed in the Superior Court for the County in the Commonwealth of Massachusetts in which the Project is located, unless otherwise agreed by CONTRACTOR and OWNER in writing."

ARTICLE 18. MISCELLANEOUS

SC-18.08

18.08 Headings:

Delete paragraph 18.08.A and replace with the following paragraph:

"18.08.A The headings or titles of any article, paragraph, subparagraph, section, subsection, or part of the Contract Documents shall not be deemed to limit or restrict the article, paragraph, section, or part."

18.09 Legal Address of Contractor

Add the following paragraph immediately after section 18.08:

"18.09.A CONTRACTOR'S business address and his office at or near the site of the Work are both hereby designated as places to which communications shall be delivered. The depositing of any letter, notice, or other communication in a postpaid wrapper directed to the CONTRACTOR'S business address in a post office box regularly maintained by the Post Office Department or the delivery at either designated address of any letter, notice, or other communication by mail or otherwise shall be deemed sufficient service thereof upon CONTRACTOR, and the date of such service shall be the date of receipt. The first-named address may be changed at any time by an instrument in writing, executed and acknowledged by CONTRACTOR

and delivered to ENGINEER. Service of any notice, letter, or other communication upon the CONTRACTOR personally shall likewise be deemed sufficient service."

SC-18.10

Insert the following new paragraph:

"SC-18.10 Wage Rates

"A. The requirements and provisions of all applicable laws and any amendments thereof or additions thereto as to employment of labor, and to the schedule of minimum wage rates established in compliance with laws shall be a part of the Contract Documents. If after the Notice of Award, it becomes necessary to employ any person in a trade or occupation not classified in the wage determinations, such person shall be paid at not less than such rates as shall be determined by the officials administering the laws mentioned above.

"B. The schedule of wages referred to above is minimum rates only, and OWNER will not consider any claims for additional compensation made by CONTRACTOR because of payment by CONTRACTOR of any wage in excess of the applicable, required rates."

Add new Article 19: Funding

Notwithstanding anything in the Contract documents to the contrary, any and all payments which the Town is required to make under this Contract shall be subject to appropriation or other availability of funds as certified by the Town Accountant. In the absence of appropriation or availability as certified herein, this Contract shall be immediately terminated without liability for damages, penalties or other charges to the Town. In the event this is a multi-year contract, this Contract shall be subject to annual appropriation and in the event funds are not so appropriated, this Contract shall terminate immediately without liability for damages, penalties or charges to the Town.

1. Add new Article 20 STATUTORY REQUIREMENTS

SECTION	SUBJECT	REFERENCE
1.1	"Or Equal" Clause	M.G.L. c. 30, § 39M(b)
1.2	Delays	M.G.L. c. 30, § 39O
1.3	Deviations	M.G.L. c. 30, § 39I
1.4	Finality of Decisions	M.G.L. c. 30. § 39J
1.5	Differing Site Conditions	M.G.L. c. 30, § 39N
1.6	Timely Decisions	M.G.L. c. 30, § 39P
1.7	Method of Payment	M.G.L. c. 30, § 39K
1.8	Direct Payment	M.G.L. c. 30, § 39F

1.9	Completion of Public Work	M.G.L. c. 30, § 39G
2.1	Preference to Veterans and Citizens	M.G.L. c. 149, § 26
2.2	Determination of Wage Rates	M.G.L. c. 149, § 27
2.3	Employment Records	M.G.L. c. 149, § 27B
2.4	Wages Paid to Operators of Trucks and Other Equipment	M.G.L. c. 149, § 27F
2.5	Reserve Police Officers	M.G.L. c. 149, § 34B
2.6	Eight-Hour Day, etc.	M.G.L. c. 149, §§ 30, 34 & 34A
2.7	Lodging, etc.	M.G.L. c. 149, § 25
2.8	Access to Contractor's Records	Executive Order No. 195
2.9	Worker's Compensation Insurance	M.G.L. c. 149, § 34A
3.1-3.5	Contractor's Accounting Method Requirements	M.G.L. c. 30, § 39R
4.1	Weather Protection	M.G.L. c. 149, § 44F(1)
4.2	Form for Sub-Contract	M.G.L. c. 149, § 44F(4)(c)
4.3	Foreign Corporations	M.G.L. c. 30, § 39L
4.4	Shoring	M.G.L. c. 149, § 129A
4.5	Compliance with Tax Laws	M.G.L. c. 62C, § 49A
4.6	Debarment or Suspension of Public Contractors	M.G.L. c.29, § 29F
4.7	False, Fictitious, or Fraudulent Claims Made to Commonwealth or Municipality.	M.G.L. c. 266, § 67B
4.8	Public Construction – Health and Safety	M.G.L. c. 30, § 39S
4.9	Security for Payment of Labor, Materials, Charges, etc., on Certain Public Works	M.G.L. c. 149, § 29

The provisions set forth in this section may be applicable to this Project and are intended to be consistent with the official versions of laws, regulations, and executive orders currently in effect as of the date of the Contract Documents. The following provisions are included for the convenience of the bidders only and the Owner shall bear no responsibility for omitted statutory or other references that apply to this Project, all such references shall be deemed to be incorporated herein even if not transcribed in this section. In addition, the parties recognize that other rights, duties, and obligations with respect to public construction

are provided for by law, notwithstanding the fact that they are not provided for in the Contract Documents. Where the term "awarding authority" appears in the following paragraphs, it shall be taken as meaning the Owner.

1.1 "Or Equal" Clause. (Statutory reference: M.G.L. c. 30, § 39M(b)) This Section 1.1 applies to every contract for the construction, reconstruction or repair of any public work or for the purchase of any material by the Commonwealth, any political subdivision thereof, or any county, city, town, district or housing authority (above certain dollar limits, as stated in the statute), and to contracts awarded pursuant to M.G.L. c. 149, §§ 44A through 44 H. The said §§44A through 44H apply to every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building by a department, agency, board, commission, authority, or other instrumentality of the Commonwealth or political subdivision thereof, or two or more subdivisions thereof, but not including the Massachusetts Bay Transportation Authority, estimated to cost more than a dollar amount set forth in M.G.L. c. 149, § 44A.

Where products or materials are prescribed by manufacturer name, trade name, or catalog reference, the word "or approved equal" shall be understood to follow. An item shall be considered equal to the item so named or described if, in the opinion of the Engineer:

(a) it is at least equal in quality, durability, appearance, strength and design;

(b) it performs at least equally the function imposed in the general design for the work;

(c) it conforms substantially, even with deviations, to the detailed requirements for the items as indicated by the specifications.

Any structural or mechanical changes made necessary to accommodate substituted Equipment under this paragraph shall be at the expense of the Contractor or Subcontractor responsible for the work item. See other paragraphs of specifications for procedures to be used in determining compliance with the standards of this paragraph.

1.2 Delays. (Statutory reference: c. 30, § 39O). This Section 1.2 applies to every contract subject to M.G.L. c. 30, § 39M and to every contract subject to c. 149, § 44A. Except as otherwise provided by law and by this Section 1.2, the Contractor shall not be entitled to damages on account of any hindrances or delays, avoidable or unavoidable; but if such delay be occasioned by the awarding authority, the Contractor may be entitled to an extension of time only, in which to complete the work, to be determined by the Engineer.

(a) The awarding authority may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the awarding authority; provided, however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the awarding authority to act within the time specified in this contract, the awarding authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the Contractor on such increase; and provided further, that the awarding authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

(b) The Contractor must submit the amount of a claim under provision (a) to the awarding authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act

and, in any event, not later than the date of final payment under this contract, and except for costs due to a suspension order, the awarding authority shall not approve any costs in the claim incurred more than twenty days before the Contractor notified the awarding authority in writing of the act or failure to act involved in the claim. In the event a suspension, delay, interruption or failure to act of the awarding authority increases the cost of performance to any Subcontractor, that Subcontractor shall have the same rights against the Contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the Contractor against the awarding authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the Contractor or the Subcontractor may have against each other.

1.3 Deviations. (Statutory reference: M.G.L. c. 30, § 39I) This Section 1.3 applies to every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public building or public works for the Commonwealth or any political subdivision thereof. The Contractor shall perform all the work required by this contract in conformity with the plans and specifications contained herein, No willful and substantial deviation from said plans and specifications shall be made unless authorized in writing by the awarding authority or by the
Engineer or Engineer in charge of the work who is duly authorized by the awarding authority to approve such deviations. In order to avoid delays in the prosecution of the work required by such contract such deviation from the plans or specifications may be authorized by a written order of the awarding authority or such Engineer or Engineer so authorized to approve such deviation. Within thirty days thereafter, such written order shall be confirmed by a certificate of the awarding authority stating: (1) If such deviation involves any substitution or elimination of materials, fixtures or equipment, the reasons why such materials, fixtures or equipment were included in the first instance and the reasons for substitution or elimination, and, if the deviation is of any other nature, the reasons for such deviation, giving justification therefor; (2) that the specified deviation does not materially injure the project as a whole; (3) that either the work substituted for the work specified is of the same cost and quality, or that an equitable adjustment has been agreed upon between the awarding authority and the Contractor and the amount in dollars of said adjustment; and (4) that the deviation is in the best interest of the awarding authority.

Such certificate shall be signed under the penalties of perjury and shall be a permanent part of the file record of the work contracted for.

Whoever violates any provision of this section willfully and with intent to defraud shall be punished by a fine of not more than five thousand dollars or by imprisonment for not more than six months, or both.

1.4 Finality of Decisions by Awarding Authority or Engineer (Statutory reference: M.G.L. c. 30, §39J). This Section 1.4 applies to every contract for the construction. reconstruction, alteration, remodeling, repair or demolition of any public building or public works by the Commonwealth or by any county, city, district, board, commission, or other public body, when the amount of the contract exceeds the amount stated in M.G.L. c. 30, § 39J.

Notwithstanding any contrary provision of this contract, no decision by the awarding authority or by the Engineer on a dispute, whether of fact or of law, arising under said contract shall be final or conclusive if such decision is made in bad faith, fraudulently, capriciously, or arbitrarily, is unsupported by substantial evidence, or is based upon error of law.

1.5 Differing Site Conditions (Statutory reference: M.G.L. c. 30, § 39N). This Section 1.5 applies to every contract subject to M.G.L. c. 30, § 39M and to every contract subject to M.G.L. c. 149, §§ 44A through 44H.

If, during the progress of the work, the Contractor or the awarding authority discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the Contract Documents, either the Contractor or the awarding authority may request an equitable adjustment in the contract price of the contract applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a Contractor, or upon its own initiative, the awarding authority shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the Contract Documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and Contract Documents and are of such a nature as to cause an increase or decrease in the cost of performance of the work or a change in the construction methods required for the performance of the work which results in an increase or decrease in the cost of the work, the awarding authority shall make an equitable adjustment in the contract price and the contract shall be modified in writing accordingly.

1.6 Timely Decision by Awarding Authority (Statutory reference: M.G.L. c. 30, § 39P). This Section 1.6 applies to every contract subject to M.G.L. c. 30, § 39 M. and to every contract subject to M.G.L. c. 149, §§ 44A through 44H. In every case in which this contract requires the awarding authority, any official, its Engineer to make a decision on interpretation of the specifications, approval of equipment, material or any other approval, or progress of the work, the decision shall be made promptly and, in any event, no later than thirty days after the written submission for decision; but if such decision requires extended investigation and study, the awarding authority, the official, Engineer shall, within thirty days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty-day period and the date by which the decision will be made.

1.7 Method of Payment (Statutory reference: M.G.L. c. 30, § 39K) This Section 1.7 applies to every contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building by the Commonwealth, or by any county, city, town, district, board, commission or other public body, when the amount of the contract exceeds the amount stated in M.G.L. c. 30, § 39K.

1.7.1 Within fifteen days (forty-five days in the case of the Commonwealth) after receipt from the Contractor, at the place designated by the awarding authority if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the awarding authority will make a periodic payment to the Contractor for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the Site (or at some location agreed upon in writing) to which the Contractor has title or to which a Subcontractor has title and has authorized the Contractor to transfer title to the awarding authority, less (1) a retention based on its estimate of the fair value of its claims against the Contractor and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of Section 1.8 of these specifications, and less (3) a retention not exceeding five percent of the approved amount of the periodic payment. After the receipt of a periodic estimate requesting final payment and within sixty-five days after (a) the Contractor fully completes the work or substantially completes the work so that the value of the work remaining to be done is, in the estimate of the awarding authority, less than one percent of the original contract price, or (b) the Contractor substantially completes the work and the awarding authority takes possession for occupancy, whichever occurs first, the awarding authority shall pay the contractor the entire balance due on the contract less (1) a retention based on its estimate of the fair value of its claims against the Contractor and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of Section 1.8 of these specifications, or based on the record of payments by the Contractor to the Subcontractors under this

contract if such record of payment indicates that the Contractor has not paid Subcontractors as provided in Section 1.8. If the awarding authority fails to make payment as herein provided, there shall be added to each such payment daily interest at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the contractor; provided, that no interest shall be due, in any event, on the amount due on a periodic estimate for final payment until fifteen days (twenty-four days in the case of the Commonwealth) after receipt of such periodic estimate from the Contractor, at the place designated by the awarding authority if such a place is so designated. The Contractor agrees to pay to each Subcontractor a portion of any such interest paid in accordance with the amount due each Subcontractor.

1.7.2 The awarding authority may make changes in any periodic estimate submitted by the Contractor, and the payment due on said periodic estimate shall be computed in accordance with the change so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided, that the awarding authority may, within seven days after receipt, return to the Contractor for correction, any periodic estimate which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of section thirty-nine G shall not apply to any contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building to which this section applies.

1.7.3. All periodic estimates shall be submitted to the awarding authority, or to its designee as set forth in writing to the Contractor, and the date of receipt by the awarding authority or its designee shall be marked on the estimate. All periodic estimates shall contain a separate item for each filed subtrade and each sub-subtrade listed in the sub-bid form as required by the specifications and a column listing the amount paid to each Subcontractor and Sub-subcontractor as of the date the periodic estimate is filed. The person making payment for the awarding authority shall add the daily interest provided for herein to each payment for each day beyond the due date based on the date of receipt marked on the estimate.

1.7.4 A certificate of the Engineer to the effect that the Contractor has fully or substantially completed the work shall, subject to the provisions of Section 1.4 of these Specifications, be conclusive for the purposes of this Section 1.7.

1.8 Direct Payment (Statutory reference: M.G.L. c. 30, § 39F) This Section 1.8 applies to every contract awarded pursuant to M.G.L. c. 149, §§ 44A through 44H, and (with the exception of Subparagraph 1.8.9) to every contract awarded pursuant to M.G.L. c. 30, § 39M.

1.8.1 Forthwith after the Contractor receives payment on account of a periodic estimate, the Contractor shall pay to each Subcontractor the amount paid for the labor performed and the materials furnished by that Subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the Subcontractor by the Contractor.

1.8.2 Not later than the sixty-fifth day after each Subcontractor substantially completes his work in accordance with the plans and specifications, the entire balance due under the subcontract, less amounts retained by the awarding authority as the estimated cost of completing the incomplete and

unsatisfactory items of work, shall be due the Subcontractor; and the awarding authority shall pay that amount to the Contractor. The Contractor shall forthwith pay to the Subcontractor the full amount received from the awarding authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the Contractor.

1.8.3 Each payment made by the awarding authority to the Contractor pursuant to Subparagraphs 1.8.1 and 1.8.2 of this Section 1.8 for the labor performed and the materials furnished by a Subcontractor shall be made to the Contractor for the account of that Subcontractor; and the awarding authority shall take reasonable steps to compel the Contractor to make each such payment to each such Subcontractor. If the awarding authority has received a demand for direct payment from a Subcontractor for any amount which has already been included in a payment to the Contractor or which is to be included in a payment to the Contractor for payment to the Subcontractor as provided in subparagraphs 1.8.1 and 1.8.2, the awarding authority shall act upon the demand as provided in this Section 1.8.

1.8.4 If, within seventy days after the Subcontractor has substantially completed the subcontract work, the Subcontractor has not received from the Contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the Contractor, less any amount retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the Subcontractor may demand direct payment of that balance from the awarding authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the awarding authority, and a copy shall be delivered to or sent by certified mail to the Contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth day after the Subcontractor has substantially completed the subcontract work. Within ten days after the Subcontractor has delivered or so mailed the demand to the awarding authority and delivered or so mailed a copy to the Contractor, the Contractor may reply to the demand. The reply shall be a sworn statement delivered to or sent by certified mail to the awarding authority, and a copy shall be delivered to or sent by certified mail to the Subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract, including any amount due for extra labor and materials furnished to the Contractor and of the amount due for each claim made by the Contractor against the Subcontractor.

1.8.5 Within fifteen days after receipt of the demand by the awarding authority, but in no event prior to the seventieth day after substantial completion of the subcontract work, the awarding authority shall make direct payment to the Subcontractor of the balance due under the subcontract, including any amount due for extra labor and materials furnished to the Contractor, less any amount (i) retained by the awarding authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the Contractor in the sworn reply; provided that the awarding authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by Subparagraph 1.8.4. The awarding authority shall make further direct payments to the Subcontractor forthwith after the removal of the basis for deduction from direct payments made as provided in parts (i) and (ii) of this subparagraph.

1.8.6 The awarding authority shall forthwith deposit the amounts deducted from a direct payment as provided in part (iii) of subparagraph 1.8.5 in an interest-bearing joint account in the names of the Contractor and the Subcontractor in bank in Massachusetts selected by the awarding authority or agreed upon by the Contractor and the Subcontractor and shall notify the Contractor and the Subcontractor of

the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the Contractor and the Subcontractor or as determined by decree of a court of competent jurisdiction.

1.8.7 All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account or accounts in a bank pursuant to Subparagraph 1.8.6 shall be made out of amounts payable to the Contractor at the time of receipt of a demand for direct payment from a Subcontractor and out of amounts which later become payable to the Contractor and in the order of receipt of such demands from subcontractors. All direct payments shall discharge the obligation of the awarding authority to the Contractor to the extent of such payment.

1.8.8 The awarding authority shall deduct from payments to a Contractor amounts which, together with the deposits in interest-bearing accounts pursuant to subparagraph 1.8.6, are sufficient to satisfy all unpaid balances of demands for direct payment received from Subcontractors. All such amounts shall be earmarked for such direct payments, and the Subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the Contractor.

1.8.9 If the Subcontractor does not receive payment as provided in Subparagraph 1.8.1 or if the Contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the Subcontractor and the Subcontractor does not receive payment for same when due less the deductions provided for in Subparagraph 1.8.1, the Subcontractor may demand direct payment by following the procedure in subparagraph 1.8.4 and the Contractor may file a sworn reply as provided in that same Subparagraph. A demand made after the first day of the month following that for which the Subcontractor performed or furnished the labor and materials for which the Subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the Contractor. Thereafter the awarding authority shall proceed as provided in subparagraphs 1.8.5, 1.8.6, 1.8.7 and 1.8.8.

1.8.10 Any assignment by a Subcontractor of the rights under this section to a surety company furnishing a bond under the provisions of M.G.L. c. 149, § 29 shall be invalid. The assignment and subrogation rights of the surety to amounts included in a demand for direct payment which are in the possession of the awarding authority or which are on deposit pursuant to Subparagraph 1.8.6 shall be subordinate to the rights of all Subcontractors who are entitled to be paid under this, section and who have not been paid in full.

1.8.11 "Subcontractor" as used in this Section 1.8 (1) for contracts awarded as provided in M.G.L. C. 149, §§ 44A - 44H, inclusive, shall mean a person who files a sub-bid and receives a subcontract as a result of that filed sub-bid or who is approved by the Awarding Authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the General Contractor, (ii) for contracts awarded as provided in M.G.L. c. 30, § 39M, paragraph (a) shall mean a person approved by the Awarding Authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the General Contractor, and (iii) for contracts with the Commonwealth not awarded as provided in M.G.L. c. 149, §§44A - 44H. inclusive, shall also mean a person contracting with the General Contractor to supply materials used or employed in a public works project for a price in excess of the amount stated in M.G.L. c. 30. § 39F.

1.8.12 A Contractor or a Subcontractor shall enforce a claim to any portion of the amount of a demand for direct payment deposited as provided in subparagraph 1.8.6 by a petition in equity in the superior court against the other and the bank shall not be a necessary party. A Subcontractor shall enforce a claim for direct payment or a right to require a deposit as provided in subparagraph 1.8.6 by

a petition in equity in the superior court against the awarding authority and the Contractor shall not be a necessary party. Upon motion of any party the court shall advance for speedy trial any petition filed as provided in this paragraph. The court shall enter an interlocutory decree upon which execution shall issue for any part of a claim found due and, upon motion of any party, shall advance for speedy trial the petition to collect the remainder of the claim. Any party aggrieved by such interlocutory decree shall have the right to appeal therefrom as from a final decree. The court shall not consolidate for trial the petition of any Subcontractor with the petition of one or more Subcontractors or the same general contract unless the court finds that a substantial portion of the evidence of the same events during the course of construction (other than the fact that the claims sought to be consolidated arise under the same general contract) is applicable to the petitions sought to be consolidated and that such consolidation will prevent unnecessary duplication of evidence. A decree in any such proceeding shall not include interest on the disputed amount deposited in excess of the interest earned for the period of any such deposit. No person except a Subcontractor filing a demand for direct payment for which no funds due the Contractor are available for direct payment shall have a right to file a petition in a court of equity against the awarding authority claiming a demand for direct payment is premature, and such Subcontractor must file the petition before the awarding authority has made a direct payment to the Subcontractor and has made a deposit of the disputed portion as provided in part (iii) of Subparagraph 1.8.5 and in subparagraph 1.8.6.

1.8.13 In any petition to collect any claim for which a Subcontractor has filed a demand for direct payment the court shall, upon motion of the Contractor, reduce by the amount of any deposit of a disputed amount by the awarding authority as provided in part (iii) of Subparagraph 1.8.5 and in subparagraph 1.8.6 any amount held under a trustee writ or pursuant to a restraining order or injunction.

1.9 Completion (Statutory reference: M.G.L. c. 30, § 39G) This Section applies to every contract or subcontract for the construction of public works by the Commonwealth or by a county, town or district, or by persons contracting or subcontracting for such works.

1.9.1 Upon substantial completion of the work required by a contract with the commonwealth, or any agency or political subdivision thereof, for the construction, reconstruction, alteration, remodeling, repair or improvement of public ways, including bridges and other highway structures, sewers and, water mains, airports and other public works, the contractor shall present in writing to the awarding authority its certification that the work has been substantially completed. Within twenty-one days thereafter, the awarding authority shall present to the contractor either a written declaration that the work has been substantially completed or an itemized list of incomplete or unsatisfactory work items required by the contract sufficient to demonstrate that the work has not been substantially completed. The awarding authority may include with such list a notice setting forth a reasonable time, which shall not in any event be prior to the contract completion date, within which the contractor must achieve substantial completion of the work. In the event that the awarding authority fails to respond, by presentation of a written declaration or itemized list as aforesaid, to the contractor's certification within the twenty-one day period, the contractor's certification shall take effect as the awarding authority's declaration that the work has been substantially completed.

1.9.2 Within sixty-five days after the effective date of a declaration of a substantial completion, the awarding authority shall prepare and forthwith send to the contractor for acceptance a substantial completion estimate for the quantity and price of the work done and all but one per cent retainage on that work, including the quantity, price and all but one per cent retainage for the undisputed part of each work item and extra work item in dispute but excluding the disputed part thereof, less the estimated cost of completing all incomplete and unsatisfactory work items and less the total periodic payments made to date for the work. The awarding authority also shall deduct from the substantial completion

estimate an amount equal to the sum of all demands for direct payment filed by subcontractors and not yet paid to subcontractors or deposited in joint accounts pursuant to section thirty-nine F, but no contract subject to said section thirty-nine F shall contain any other provision authorizing the awarding authority to deduct any amount by virtue of claims asserted against the contract by subcontractors, material suppliers or others.

If the awarding authority fails to prepare and send to the contractor any substantial completion estimate required by this section on or before the date herein above set forth, the awarding authority shall pay to the contractor interest on the amount which would have been due to the contractor pursuant to such substantial completion estimate at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston from such date to the date on which the awarding authority sends that substantial completion estimate to the contractor for acceptance or to the date of payment therefor, whichever occurs first. The awarding authority shall include the amount of such interest in the substantial completion estimate.

1.9.3 Within fifteen days after the effective date of the declaration of substantial completion, the awarding authority shall send to the contractor by certified mail, return receipt requested, a complete list of all incomplete or unsatisfactory work items, and, unless delayed by causes beyond his control, the contractor shall complete all such work items within forty-five days after the receipt of such list or before the then contract completion date, whichever is later. If the contractor fails to complete such work within such time, the awarding authority may, subsequent to seven days' written notice to the contractor by certified mail, return receipt requested, terminate the contract and complete the incomplete or unsatisfactory work items and charge the cost of same to the contractor.

1.9.4 Within thirty days after receipt by the awarding authority of a notice from the contractor stating that all of the work required by the contract has been completed, the awarding authority shall prepare and forthwith send to the contractor for acceptance a final estimate for the quantity and price of the work done and all retainage on that work less all payments made to date, unless the awarding authority's inspection shows that work items required by the contract remain incomplete or unsatisfactory, or that documentation required by the contract has not been completed. If the awarding authority fails to prepare and send to the contractor the final estimate within thirty days after receipt of notice of completion, the awarding authority shall pay to the contractor interest on the amount which would have been due to the contractor pursuant to such final estimate at the rate hereinabove provided from the thirtieth day after such completion until the date on which the awarding authority sends the final estimate to the contractor for acceptance or the date of payment therefor, whichever occurs first, provided that the awarding authority's inspection shows that no work items required by the contract remain incomplete or unsatisfactory. Interest shall not be paid hereunder on amounts for which interest is required to be paid in connection with the substantial completion estimate as hereinabove provided. The awarding authority shall include the amount of the interest required to be paid hereunder in the final estimate.

1.9.5 The awarding authority shall pay the amount due pursuant to any substantial completion or final estimate within thirty-five days after receipt of written acceptance for such estimate from the contractor and shall pay interest on the amount due pursuant to such estimate at the rate hereinabove provided from that thirty-fifth day to the date of payment. Within 15 days, 30 days in the case of the commonwealth, after receipt from the contractor, at the place designated by the awarding authority, if such place is so designated, of a periodic estimate requesting payment of the amount due for the preceding periodic estimate period, the awarding authority shall make a periodic payment to the contractor for the work performed during the preceding periodic estimate period and for the materials not incorporated in the work but delivered and suitably stored at the site, or at some location agreed

upon in writing, to which the contractor has title or to which a subcontractor has title and has authorized the contractor to transfer title to the awarding authority, upon certification by the contractor that he is the lawful owner and that the materials are free from all encumbrances. The awarding authority shall include with each such payment interest on the amount due pursuant to such periodic estimate at the rate herein above provided from the due date. In the case of periodic payments, the contracting authority may deduct from its payment a retention based on its estimate of the fair value of its claims against the contractor, a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, and a retention to secure satisfactory performance of the contractual work not exceeding five per cent of the approved amount of any periodic payment, and the same right to retention shall apply to bonded subcontractors entitled to direct payment under section thirty-nine F of chapter thirty; provided, that a five per cent value of all items that are planted in the ground shall be deducted from the periodic payments until final acceptance.

1.9.6 No periodic, substantial completion or final estimate or acceptance or payment thereof shall bar a contractor from reserving all rights to dispute the quantity and amount of, or the failure of the awarding authority to approve a quantity and amount of, all or part of any work item or extra work item.

1.9.7 Substantial completion, for the purposes of this section, shall mean either that the work required by the contract has been completed except for work having a contract price of less than one per cent of the then adjusted total contract price, or substantially all of the work has been completed and opened to public use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the work required by the contract.

2.1 Preference To Veterans and Citizens In Public Work; Rate of Wages (Statutory reference: M.G.L. c. 149, §26) This Section applies to every contract or subcontract for the construction of public works by the Commonwealth or by a county, town or district, or by persons contracting or subcontracting for such works.

2.1.1 In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers, preference shall first be given to citizens of the Commonwealth who have been residents of the Commonwealth for at least six months at the commencement of their employment, who are veterans as defined in M.G.L. c. 4, § 7, clause 43, and who are qualified to perform the work to which the employment relates; and secondly, to citizens of the Commonwealth generally who have been residents of the Commonwealth for at least six months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, and every contract for such work shall contain a provision to this effect. Each county, town or district in the construction of public works, or persons contracting or subcontracting for such works, shall give preference to veterans and citizens who are residents of such county, town or district.

2.1.2 The rate per hour of the wages paid to said mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works shall not be less than the rate or rates of wages to be determined by the Commissioner of Labor and Industries as hereinafter provided; provided, that the wages paid to laborers employed on said works shall not be less than those paid to laborers in the municipal service of the town or towns where said works are being constructed; provided, further, that where the same public work is to be constructed in two or more towns, the wages paid to laborers shall not be less than those paid to laborers in the municipal service of the town paying the highest rate; provided further, that if, in any of the towns where the works are to be constructed, a wage rate or wage rates have been established in certain trades and occupations by collective agreements or understandings between organized labor and employers, the rate or rates to be paid on said works shall

not be less than the rates so established; provided, further, that in towns where no such rate or rates have been so established, the wages paid to mechanics, teamsters, chauffeurs and laborers on public works, shall not be less than the wages paid to the employees in the same trades and occupations by private employers engaged in the construction industry. This section shall also apply to regular employees of the Commonwealth or of a county, town or district, when such employees are employed in the construction, addition to or alteration of public buildings for which special appropriations of more than one thousand dollars are provided. Payments by employers to health and welfare plans, pension plans and supplementary unemployment benefit plans under collective bargaining agreements or understandings between organized labor and employers shall be included for the purpose of establishing minimum wage rates as herein provided.

2.2 List of Jobs; Classifications, Determination of Rate of Wages; Schedule. (Statutory reference: M.G.L. c. 149, § 27) This Section applies to every contract or subcontract for the construction of public works by the Commonwealth, or by a county, town or district.

The Commissioner of Labor and Industries shall prepare, for the use of such public officials or public bodies whose duty it shall be to cause public works to be constructed, a list of the several jobs usually performed on various types of public works upon which mechanics and apprentices, teamsters, chauffeurs and laborers are employed, including the transportation of gravel or fill to the site of said public works, or the removal of surplus gravel or fill from such site. The Commissioner shall classify said jobs, and he may revise such classifications from time to time, as he may deem advisable. Prior to awarding a contract for the construction of public works, said public official or public body shall submit to the Commissioner a list of the jobs upon which mechanics and apprentices, teamsters, chauffeurs and laborers are to be employed, and shall request the Commissioner to determine the rate of wages to be paid on each job. Said rates shall apply to all persons engaged in transporting gravel or fill to the site of said public works or removing gravel or fill from such site, regardless of whether such persons are employed by a contractor or subcontractor or are independent contractors or owner operators. The Commissioner; subject to the provisions of Section 2.1 of these Specifications, shall proceed forthwith to determine the same, and shall furnish said official or public body with a schedule of such rate or rates of wages as soon as said determination shall have been made. In advertising or calling for bids for said works, the awarding official or public body shall incorporate said schedule in the advertisement or call for bids by an appropriate reference thereto, and shall furnish a copy of said schedule without cost, to any person requesting the same, said schedule shall be made a part of the contract for said works and shall continue to be the minimum rate or rates of wages for said employees during the life of the contract. Any person engaged in the construction of said works shall cause a legible copy of said schedule to be kept posted in a conspicuous place at the site of said works during the life of the contract.

The aforesaid rates of wages in the schedule of wage rates shall include payments by employers to health and welfare plans, pension plans and supplementary unemployment benefit plans as provided in the previous section, and such payments shall be considered as payments to persons under this section performing work as herein provided. Any employer engaged in the construction of such works who does not make payments to a health and welfare plan, a pension plan and a supplementary unemployment benefit plan, where such payments are included in said rates of wages, shall pay the amount of said payments directly to each employee engaged in said construction. Whoever shall pay less than said rate or rates of wages, including payments to health and welfare funds and pension funds, or the equivalent payment in wages, on said works to any person performing work within classifications as determined by the commissioner, and whoever, for himself, or as representative, agent or officer of another, shall take or receive for his own use or the use of any other person, as a rebate, refund or gratuity, or in any other guise, any part or portion of the wages, including payments to health and welfare funds and pension funds, or the equivalent payment in wages, paid to any such person for work done or service rendered on said public

works, shall be punished by a fine of not more than ten thousand dollars. Offers of restitution or payment of restitution shall not be considered in imposing such punishment. (Note: The Awarding Authority does not guarantee the accuracy of any schedule of wage rates furnished to the Contractor hereunder, and the Contractor shall be responsible for ascertaining the prevailing wages in the area where the work will be performed.)

When an investigation by the attorney general's office reveals that a contractor or subcontractor has violated this section by failing to pay said rate or rates of wages, including payments to health and welfare funds and pension funds, or the equivalent payment in wages, on said works to any person performing work within classifications as determined by the commissioner, or that a contractor or subcontractor has, for himself, or as representative, agent or officer of another, taken or received for his own use or the use of any other person, as a rebate, refund or gratuity, or in any other guise, any portion of the wages, including payments to health and welfare funds, or the equivalent payment in wages, paid to any such person for work done or service rendered on said public works, the attorney general may, upon written notice to the contractor or subcontractor and the sureties of the contractor or subcontractor, and after a hearing thereon, order work halted on the part of the contract on which such wage violations occurred, until the defaulting contractor or subcontractor has filed with the attorney general's office a bond in the amount of such penal sum as the attorney general shall determine, conditioned upon payment of said rate or rates of wages, including payments to health and welfare funds and pension funds, or the equivalent payment in wages, on said works to any person performing work within classifications as determined by the commissioner.

Any employee claiming to be aggrieved by a violation of this section may, at the expiration of ninety days after the filing of a complaint with the attorney general, or sooner if the attorney general assents in writing, and within three years of such violation, institute and prosecute in his own name and on his own behalf, or for himself and for others similarly situated, a civil action for injunctive relief and any damages incurred, including treble damages for any loss of wages and other benefits. Any employee so aggrieved and who prevails in such an action shall be entitled to an award of the costs of the litigation and reasonable attorneys' fees.

2.3 Employment Records To Be Kept By Contractor. Subcontractors; Statement Of Compliance (Statutory reference: M.G.L. c. 149, § 27B) This Section applies to every contract or subcontract for the construction of public works by the Commonwealth, or by a county, town or district.

Every contractor, subcontractor or public body engaged in said public works to which Section 2.2 of these Specifications applies shall keep a true and accurate record of all mechanics and apprentices, teamsters, chauffeurs and laborers employed thereon, showing the name, address and occupational classification of each Such employee, and shall furnish to the Commissioner of Labor and Industries, upon his request, a copy of said record, signed by the employer or his authorized agent under the penalties of perjury. Such records shall be open to inspection by any authorized representative of the Department of Labor and Industries at any reasonable time, and as often as may be necessary. Every contractor and subcontractor required to keep such a record shall submit a copy of said record to the awarding authority on a weekly basis.

Each such contractor, subcontractor or public body shall preserve its payroll records for a period of three years from the date of completion of the contract.

Each such contractor, subcontractor or public body shall furnish to the Commissioner of Labor and Industries within fifteen days after completion of its portion of the work a statement, executed by the contractor, subcontractor, or public body who supervises the payment of wages, in the following form:

STATEMENT OF COMPLIANCE

I, _____
(Name of signatory party)
(Title)

do hereby state;

That I pay or supervise the payment of the persons employed by

_____
(Contractor, subcontractor or public body)

on the _____
(building or project)

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty-nine of the General Laws.

Signature _____

Title _____

The above mentioned copies of payroll records and statements of compliance shall be available for inspection by any interested party filing a written request to the Commissioner for such inspection.

2.4 Wages Paid to Operators of Trucks and Other Equipment. (Statutory reference: M.G.L. c. 149, § 27F) This Section applies to every contract for the construction of public works by the Commonwealth, or by a county, city, town or district.

Prescribed rates of wages, as determined by the Commissioner of Labor and Industries, shall be paid to the operators of all trucks, vehicles or equipment employed on the Project. Said rates of wages shall be requested of said Commissioner by the awarding authority and shall be furnished by the Commissioner in a schedule containing the classification of jobs, and the rate of wage to be paid for each job. Said rates of wages shall include payments to health and welfare plans, or, if no such plan is in effect between employers and employees, the amount of such payments shall be paid directly to said operators.

Whoever pays less than said rates of wages, including payments to health and welfare funds, or the equivalent in wages, on said works, and whoever accepts for his own use, or for the use of any other person, as a rebate, gratuity or in any other guise, any part or portion of said wages or health and welfare funds, shall be punished by a fine of not less than one thousand nor more than five thousand dollars.

Any employee claiming to be aggrieved by a violation of this section may, at the expiration of ninety days after the filing of a complaint with the attorney general, or sooner if the attorney general assents in writing, and within three years of such violation, institute and prosecute in his own name and on his own behalf, or for himself and for others similarly situated, a civil action for injunctive relief and any damages incurred, including treble damages for any loss of wages and other benefits. Any employee so aggrieved and who prevails in such an action shall be entitled to an award of the costs of the litigation and reasonable attorneys' fees.

2.5 Reserve Police Officers (Statutory reference: M.G.L. c. 149, § 34S) This Section 2.5 applies to every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public works for the Commonwealth or any political subdivision thereof. The Contractor shall pay to any reserve police officer employed by him in any city or town the prevailing rate of wages paid to regular police officers in such city or town.

2.6 Eight-Hour Day, etc. (Statutory reference: M.G.L. c. 149, §§ 30 and 34) This Section 2.6 applies only to contracts which are subject to the provisions of the aforesaid Sections of the Massachusetts General Laws.

No laborer, worker, mechanic, foreman or inspector working within this Commonwealth in the employ of the Contractor, Subcontractor or other person doing or contracting to do the whole or part of the work contemplated by the contract, shall be required or permitted to work more than eight hours in any one day or more than forty-eight hours in any one week, or more than six days in any one week, except in cases of extraordinary emergency.

2.7 Lodging, etc. (Statutory reference: M.G.L. c. 149, § 25) This Section applies to every contract for the doing of public work with the Commonwealth, a county, city, or town, or with a department, board, commission, or officer acting therefor. Every employee under this contract shall lodge, board and trade where and with whom he elects, and neither the Contractor nor his agents or other employees shall directly or indirectly require, as a condition of the employment of any person, that the employee shall lodge, board or trade at a particular place or with a particular person.

2.8 Access to Contractor's Records At any time during normal business hours, and as often as the Town may deem it reasonably necessary, there shall be available in the office of the Contractor for the purpose of audit, examination, and/or to make excerpts or transcript all records, contracts, invoices, materials, payrolls, records of personnel, conditions of employment and other data relating to all matters covered by this Agreement.

2.9 Worker's Compensation Insurance (Statutory reference: M.G.L. c. 149, § 34A) This Section 2.9 applies to every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public building or other public works for the Commonwealth or any political subdivision thereof.

The Contractor shall, before commencing performance of the contract, provide by insurance for the payment of compensation and the furnishing of other benefits under M.G.L. c. 152 to all persons to be employed under the contract, and the Contractor shall continue such insurance in full force and effect during the term of the contract. Sufficient proof of compliance with this Section 2.9 must be furnished at the time of execution of this contract. Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of the contract and shall operate as an immediate termination thereof. No cancellation of such insurance, whether by the insurer or by the insured. shall be valid unless written notice thereof is given by the party proposing cancellation to the other party and to the awarding authority at least fifteen days prior to the intended effective date thereof, which date shall be expressed in said notice.

3.1 Contractor’s Accounting Method Requirements. The words defined herein shall have the meaning stated below whenever they appear in this Article 4:

3.1.1 "Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to § 39M of c. 30, §§ 44A - 44H inclusive, of c. 149, and §§ 30B - 30P, inclusive, of c. 7.

3.1.2 "Contract" means any contract awarded or executed pursuant to §§ 30B - 30P, inclusive, of c. 7, and any contract awarded or executed pursuant to § 39M of c. 30, or §§ 44A - 44H, inclusive, of c. 149, which is for an amount or estimated amount that exceeds the dollar amount set forth in M.G.L. c. 30, § 39R.

3.1.3 "Records" means books of original entry, accounts, checks, bank statements and all other banking documents, correspondence, memoranda, invoices, computer printouts, tapes, discs, papers and other documents or transcribed information of any type, whether expressed in ordinary or machine language.

3.1.4 "Independent Certified Public Accountant" means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his/her residence or principal office and who is in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof. Determination of an accountant's independence shall not be confined to the relationships existing in connection with the filing of reports with the awarding authority.

3.1.5 "Audit," when used in regard to financial statements, means an examination of records by an independent certified public accountant in accordance with generally accepted accounting principles and auditing standards for the purpose of expressing a certified opinion thereon, or, in the alternative, a qualified opinion or a declination to express an opinion for stated reasons.

3.1.6 "Accountant's Report," when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which s/he has made and sets forth his/her opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include as a part thereof a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the Contractor.

3.1.7 "Management," when used herein, means the chief executive officers, partners, principals or other person or persons primarily responsible for the financial and operational policies and practices of the Contractor.

3.1.8 Accounting terms, unless otherwise defined herein, shall have a meaning in accordance with generally accepted accounting principles and auditing standards.

3.2 Subparagraph 3.1.2 hereof notwithstanding, every agreement or contract awarded or executed pursuant to §§ 30B - 30P, inclusive, of c. 7, and pursuant to §§ 39M of c. 30 or to §§ 44A - 44H, inclusive, of c. 149, shall provide that:

3.2.1 The Contractor shall make, and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the Contractor, and

3.2.2 until the expiration of six years after final payment, the awarding authority, office of inspector general, and the deputy commissioner of capital planning and operations shall have the right

to examine any books, documents, papers or records of the Contractor or of his/her Subcontractors that directly pertain to, and involve transactions relating to, the Contractor or his/her Subcontractors, and

3.2.3 if the agreement is a contract as defined herein, the Contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the awarding authority, including in his/her description the date of the change and reasons therefor, and shall accompany said description with a letter from the Contractor's independent certified public accountant approving or otherwise commenting on the changes, and

3.2.4 if the agreement is a contract as defined herein, the Contractor has filed a statement of management on internal accounting controls as set forth in Section 3.3 below prior to the execution of the contract, and

3.2.5 if the agreement is a contract as defined herein, the Contractor has filed prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in Section 3.5 below.

3.3 Every Contractor awarded a contract shall file with the awarding authority a statement of management as to whether the system of internal accounting controls of the Contractor and its subsidiaries reasonably assures that:

3.3.1 transactions are executed in accordance with management's general and specific authorization;

3.3.2 transactions are recorded as necessary;

(i) to permit preparation of financial statements in conformity with generally accepted accounting principles, and

(ii) to maintain accountability for assets

3.3.3 access to assets is permitted only in accordance with management's general or specific authorization, and

3.3.4 the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

3.4 Every Contractor awarded a contract shall also file with the awarding authority a statement prepared and signed by an independent certified public accountant, stating that s/he has examined the statement of management on internal accounting controls, and expressing an opinion as to

3.4.1 whether the representations of management in response to this paragraph and Section 3.2 above are consistent with the result of management's evaluation of the system of internal accounting controls; and

3.4.2 whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.

3.5 Every Contractor awarded a contract by the Commonwealth or by any political subdivision thereof shall annually file with the Awarding Authority during the term of the contract a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report, such statement shall be made available to the Awarding Authority upon request.

3.6 The Office of Inspector General, The Commissioner for Capital Planning And Operations and any other Awarding Authority shall enforce the provisions of this section. The commissioner of capital planning and operations may after providing an opportunity for the inspector general and other interested parties to comment, promulgate pursuant to the provisions of chapter thirty A such rules, regulations and guidelines as are necessary to effectuate the purposes of this section. Such rules, regulations and guidelines may be applicable to all Awarding Authorities. A contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to section forty-four C of chapter one hundred and forty-nine.

3.7 Records and statements required to be made, kept or filed under the provisions of this section shall not be public records as defined in section seven of chapter four and shall not be open to public inspection; provided, however, that such records and statements shall be made available pursuant to the provisions of clause (2) of paragraph (b) of M.G.L. c. 30 § 39R.

4.1 Weather Protection. This Section applies to every contract subject to M.G.L. c149, § 44A.

The Contractor shall install weather protection and provide adequate heat in the protected area from November 1 to March 31, as required by M.G.L. c. 149 § 44F(I), and c. 149 § 44G(D).

4.2 Form for Sub-contract. This Section applies to every contract subject to M.G.L. c. 149, § 44A.

The Contractor when sub-contracting with sub-bidders filed pursuant to M.G.L. c. 149 § 44F shall use the form for sub-contract in c. 149, § 44F(4)(c)

4.3 Foreign Corporations. This Section applies to every contract with the Commonwealth, a county, city, town, district, board, commission, or other public body for the construction, reconstruction, alteration. remodeling, repair, or demolition of any public building or other public works,

The Contractor, if a foreign corporation, shall comply with M.G.L. c. 30 § 39L.

4.4 Shoring. (Statutory reference: M.G.L. c. 149, § 129A) This Section applies to every construction project carried on by any city, town, county, or other subdivision of the Commonwealth in which a trench is to be dug to a depth of five feet or more, except for trenches for laying of water pipes dug to a depth of six and one-half feet which will be open less than 48 hours, and except for digging of graves.

Trenches shall be shored and braced in conformity with rules and regulations relating thereto adopted and enforced by the Department of Labor and Industries.

4.5 Certification of Compliance with Tax Laws (Statutory reference: M.G.L. c. 62 C, § 49A) This Section 4.5 applies to contracts for goods or services furnished to any department, board, commission, division, authority, district or other agency of the Commonwealth or any subdivision of the Commonwealth, including a city, town or district.

By executing this contract, the Contractor certifies, under penalties of perjury, that to the best of

his information, knowledge and belief he has complied with all laws of the Commonwealth relating to taxes.

4.6 Debarment or Suspension of Public Contractors; Definitions; List of Contractors; Grounds; Notice; Effect on Affiliates; Mitigating Factors; Effect of Debarment or Suspension (Statutory reference: M.G.L. c.29, § 29F)

(a) As used in this section the following words shall, unless the context requires otherwise, have the following meanings:--

"Affiliates", entities which are affiliates of each other when either directly or indirectly one concern or individual controls or has the power to control another, or when a third party controls or has the power to control both.

"Commissioner", the commissioner of the division of capital asset management and maintenance or his designee within such division.

"Contractor ", any person that has furnished or seeks to furnish supplies or services under a contract with a public agency or with a person under a contract with a public agency.

"Debarment", an exclusion from public contracting or subcontracting for a reasonable, specified period of time commensurate with the seriousness of the offense.

"Public agency", a department, agency, board, commission, authority, activity or instrumentality of the commonwealth, or of any political subdivision of the commonwealth, or of two or more subdivisions thereof.

"Person", any natural person, business, partnership, corporation, union, committee, club or other organization, entity or group of individuals.

"Public contract", a contract for the furnishing of supplies or services to any public agency.

"Secretary", the head of an executive office established under chapter six A or his designee within such executive office, or the secretary of administration appointed pursuant to section four of chapter seven or his designee within the executive office.

"Suspension", the temporary disqualification of a contractor who is suspected upon adequate evidence of engaging or having engaged in conduct which constitutes grounds for debarment.

(b) The secretary of administration shall establish and maintain a consolidated list of contractors to whom public contracts shall not be awarded and from whom offers, bids, or proposals shall not be solicited.

The list shall show at a minimum the following information: (1) the names of those persons debarred or suspended in alphabetical order with appropriate cross reference where more than one name is involved in a single debarment or suspension; (2) the basis of authority for each debarment or suspension, including the secretary or other official who imposed the debarment or suspension; (3) the extent of restrictions imposed; (4) the termination date of each debarment or suspension; and (5) in the case of a suspension, the hearing date, if and when set, for debarment proceedings.

The secretary of administration shall cause the list to be kept current by the issuance of notices of additions and deletions. The list shall be published on a periodic basis, together with notices of additions and deletions therefrom, in the goods and services bulletin and the central register published by the state secretary and in such other publications as the secretary of administration shall designate. The secretary of administration shall also forward said list to the inspector general, the attorney general, and the state auditor. A secretary or the commissioner, as the case may be, upon imposing a debarment or suspension or removing a suspension shall forthwith notify the secretary of administration of all information required for inclusion on such list.

(c) Debarment may be imposed for the following causes; but, debarment shall be imposed in all causes where debarment is required by law:

(1) conviction or final adjudication by a court or administrative agency of competent jurisdiction of any of the following offenses: (i) a criminal offense incident to obtaining or attempting to obtain a public or private contract or subcontract, or in the performance of such contract or subcontract; (ii) a criminal offense involving embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property or any other offense indicating a lack of business integrity or business honesty which seriously and directly affects the contractor's present responsibility as a public contractor; (iii) a violation of state or federal antitrust laws arising out of the submission of bids or proposals; (iv) a violation of state or federal laws regulating campaign contributions; (v) a violation of chapter two hundred and sixty eight A; (vi) a violation of any state or federal law regulating hours of labor, prevailing wages, minimum wages, overtime pay, equal pay, child labor, or worker's compensation; (vii) a violation of any state or federal law prohibiting discrimination in employment; or (viii) repeated or aggravated violation of any state or federal law regulating labor relations or occupational health or safety; or (ix) repeated or aggravated violation of any state or federal law protecting the environment; or

(2) substantial evidence, as determined by a secretary or the commissioner, of any of the following acts: (i) willfully supplying materially false information incident to obtaining or attempting to obtain or performing any public contract or subcontract; (ii) willful failure to comply with recordkeeping and accounting requirements prescribed by law or regulation; (iii) a record of failure to perform or of unsatisfactory performance in accordance with the terms of one or more public contracts, provided that such failure to perform or unsatisfactory performance has occurred within a reasonable period of time preceding the determination to debar and provided further that such failure to perform or unsatisfactory performance was not caused by factors beyond the contractor's control; (iv) a record of health and safety or environmental violations of a sufficient frequency and severity so as to evidence a pattern of noncompliance with existing state and federal laws, or any rules and regulations applicable thereto; (v) any other cause affecting the responsibility of a contractor which the secretary or the commissioner determines to be of such serious and compelling nature as to warrant debarment. Notwithstanding any other provision of this section, any contractor debarred or suspended by any agency of the United States shall by reason of such debarment or suspension be simultaneously debarred or suspended under this section, with respect to non-federally aided contracts; the secretary or the commissioner may determine in writing that special circumstances exist which justify contracting with the affected contractor. The secretary or the commissioner shall give written notice to the secretary of administration of any such determination.

(d) No contractor may be suspended unless a secretary or the commissioner has first informed the contractor by written notice of the proposed suspension mailed by registered or certified mail to the contractor's last known address, except when the secretary or the commissioner determines that

immediate suspension is necessary to prevent serious harm to the commonwealth, in which case the suspension shall take effect immediately upon signing by the secretary or the commissioner of an order of suspension, and notice shall be mailed to the contractor at the earliest opportunity. The notice shall inform the contractor of the reasons for the proposed suspension and shall state that the contractor may within fourteen days respond in writing and may in such response request a hearing. The secretary or the commissioner may extend the period for response at the request of the contractor. The secretary or the commissioner shall determine whether to impose the suspension or, in the case of an emergency suspension imposed prior to notice to the contractor, whether to continue the suspension after reviewing the contractor's response, if any, and making such investigation as the secretary or the commissioner determines is necessary and appropriate. An indictment, or any information or other filing by a public agency charging a criminal offense, for any of the offenses listed in paragraph (1) of subsection (c) shall constitute adequate evidence to support a suspension.

If the contractor requests a hearing, and the suspension is not based on an indictment, the secretary or the commissioner shall conduct a hearing according to the rules for the conduct of adjudicatory hearings established by the secretary of administration pursuant to chapter thirty A. Such hearing shall be initiated within thirty days of the imposition of the suspension, unless the contractor requests that the hearing be delayed. Officers and employees of the office of the inspector general and records of said office shall not be subject to subpoena for such hearing, if in the opinion of the inspector general production of records or testimony would prejudice any pending investigation by said office.

A suspension shall not exceed twelve months unless a pending administrative or judicial proceeding in which the contractor is a party may result in a conviction or final adjudication of an offense listed in paragraph (1) of subsection (c).

(e) No contractor may be debarred under this section unless a secretary or the commissioner proposing the debarment has first informed the contractor by written notice of the proposed debarment mailed by registered or certified mail to the contractor's last known address. The notice shall inform the contractor of the reasons for the debarment and shall state that the contractor will be accorded an opportunity for a hearing if the contractor so requests within fourteen days of receipt of the notice. A hearing requested under this paragraph shall be conducted by the secretary or the commissioner within sixty days of receipt of the request, unless the secretary or the commissioner grants additional time therefor at the request of the contractor. The hearing shall be conducted according to the rules for the conduct of adjudicatory hearings established by the commissioner of administration pursuant to chapter thirty A. A debarment shall not be imposed until (i) fourteen days after receipt by the contractor of notice of the proposed debarment if no hearing is requested, or (ii) the issuance of a written decision by the secretary or the commissioner which makes specific findings that there is sufficient evidence to support the debarment and that debarment for the period specified in the decision is required to protect the integrity of the public contracting process. A contractor shall be notified forthwith of the decision by registered or certified mail, and of the contractor's right to judicial review in the event that the decision is adverse to the contractor. If a suspension precedes a debarment, the suspension period shall be considered in determining the debarment period.

(f) A debarment or suspension may include all known affiliates of a contractor. The decision to include a known affiliate within the scope of a debarment or suspension shall be made on a case by-case basis, after giving due regard to all relevant facts and circumstances. The offense or act of an individual justifying suspension, or the evidence justifying a suspension, may be imputed to the entity with which the individual is connected when such offense or act occurred in connection with the individual's performance of duties for or on behalf of the entity or with the knowledge, approval, or acquiescence of the entity or one or more of its principals. The entity's acceptance of the benefits derived from the

conduct shall be evidence of such knowledge, approval, or acquiescence. The offense or act of an entity justifying debarment, or the evidence justifying a suspension, may be imputed to any officer, director, shareholder, partner, employee or other individual associated with the entity who participated in, knew of, or had reason to know of the entity's act. An entity or individual may not be suspended or debarred except in accordance with the procedures set forth in this section, provided that a public agency may reject a bid or proposal from any contractor when the public agency reasonably determines that such contractor is not responsible or eligible.

(g) In determining whether to debar a contractor, or the period of a debarment, all mitigating facts and circumstances shall be taken into consideration. Except as precluded by statute, a debarment may be removed or the period thereof may be reduced by the secretary or the commissioner who imposed the debarment or suspension upon the submission of an application supported by documentary evidence setting forth appropriate grounds for the granting of relief, such as newly discovered material evidence, reversal of a judgment or conviction, bona fide change of ownership or management, or the elimination of the cause for which the debarment was imposed.

(h) During the period for which a person has been debarred or suspended, that person shall not submit or cause to be submitted offers, bids, or proposals to any public agency, nor shall any public agency solicit or consider offers, bids, or proposals from, nor execute, renew, or extend any contract with, a debarred or suspended contractor, and a contractor shall not contract for supplies or services from a debarred or suspended subcontractor on any public contract.

(i) The secretary of administration shall by regulation drawn up in consultation with each secretary and the commissioner provide for, upon the request of any secretary or the commissioner the timely commencement by, the removal to, or consolidation at the executive office of administration and finance of debarment or suspension proceedings. Such regulations also shall provide that the contractor against whom debarment or suspension proceedings have been initiated may apply to the secretary of administration for consolidation of such proceedings at the executive office of administration. Such proceedings shall be conducted by the secretary of administration or his designee in accordance with the provision of this section.

4.7 False, Fictitious, or Fraudulent Claims Made to Commonwealth or Municipality (Statutory reference M.G.L. c. 266, § 67B) Whoever makes or presents to any employee, department, agency or public instrumentality of the commonwealth, or of any political subdivision thereof, any claim upon or against any department, agency, or public instrumentality of the commonwealth, or any political subdivision thereof, knowing such claim to be false, fictitious, or fraudulent, shall be punished by a fine of not more than ten thousand dollars or by imprisonment in the state prison for not more than five years, or in the house of correction for not more than two and one-half years, or both.

4.8 Public Construction -- Health and Safety (Statutory reference M.G.L. c. 30, § 39S)

(a) As used in this section the word "person" shall mean any natural person, joint venture, partnership corporation or other business or legal entity. Any person submitting a bid for, or signing a contract to work on, the construction, reconstruction, alteration, remodeling or repair of any public work by the commonwealth, or political subdivision thereof, or by any county, city, town, district, or housing authority, and estimated by the awarding authority to cost more than $10,000, and any person submitting a bid for, or signing a contract to work on, the construction, reconstruction, installation, demolition, maintenance or repair of any building by a public agency, estimated to cost more than $10,000, shall certify on the bid, or contract, under penalties of perjury, as follows:

(1) that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work;

(2) that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and

(3) that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration.

(b) Any employee found on a worksite subject to this section without documentation of successful completion of a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration shall be subject to immediate removal.

(c) The attorney general, or his designee, shall have the power to enforce this section including the power to institute and prosecute proceedings in the superior court to restrain the award of contracts and the performance of contracts in all cases where, after investigation of the facts, he has made a finding that the award or performance has resulted in violation, directly or indirectly, of subsection (b), and he shall not be required to pay to the clerk of the court an entry fee in connection with the institution of the proceeding.

4.9 Security for Payment of Labor, Materials, Charges, etc., on Certain Public Works; Filing of Claim; Petition, Hearing and so forth (Statutory reference: M.G.L. c. 149, § 29) Officers or agents contracting in behalf of the commonwealth or in behalf of any county, city, town, district or other political subdivision of the commonwealth or other public instrumentality for the construction, reconstruction, alteration, remodeling, repair or demolition of public buildings or other public works when the amount of the contract in the case of the commonwealth is more than five thousand dollars, and in any other case is more than two thousand dollars, shall obtain security by bond in an amount not less than one half of the total contract price, for payment by the contractor and subcontractors for labor performed or furnished and materials used or employed therein, including lumber so employed which is not incorporated therein and is not wholly or necessarily consumed or made so worthless as to lose its identity, but only to the extent of its purchase price less its fair salvage value, and including also any material specially fabricated at the order of the contractor or subcontractor for use as a component part of said public building or other public work so as to be unsuitable for use elsewhere, even though such material has not been delivered and incorporated into the public building or public work, but only to the extent of its purchase price less its fair salvage value and only to the extent that such specially fabricated material is in conformity with the contract, plans and specifications or any changes therein duly made; for payment of transportation charges for materials used or employed therein which are consigned to the contractor or to a subcontractor who has a direct contractual relationship with the contractor; for payment by such contractor and subcontractors of any sums due for the rental or hire of vehicles, steam shovels, rollers propelled by steam or other power, concrete mixers, tools and other appliances and equipment employed in such construction, reconstruction, alteration, remodeling, repair or demolition; for payment of transportation charges directly related to such rental or hire; and for payment by such contractor and subcontractors of any sums due trustees or other persons authorized to collect such payments from the contractor or subcontractors, based upon the labor performed or furnished as aforesaid, for health and welfare plans, supplementary unemployment benefit plans and other fringe benefits which are payable in cash and provided for in collective bargaining agreements between organized

labor and the contractor or subcontractors; provided, that any such trustees or other persons authorized to collect such payments for health and welfare plans, supplementary unemployment benefit plans and other fringe benefits shall, subject to the following provisions, be entitled to the benefit of the security only in an amount based upon labor performed or furnished as aforesaid for a maximum of two hundred and forty consecutive calendar days.

In order to obtain the benefit of such bond for any amount claimed due and unpaid at any time, any claimant having a contractual relationship with the contractor principal furnishing the bond, who has not been paid in full for any amount claimed due for the labor, materials, equipment, appliances or transportation included in the paragraph (1) coverage within sixty-five days after the due date for same, shall have the right to enforce any such claim (a) by filing a petition in equity within one year after the day on which such claimant last performed the labor or furnished the labor, materials, equipment, appliances or transportation included in the claim and (b) by prosecuting the claim thereafter by trial in the superior court to final adjudication and execution for the sums justly due the claimant as provided in this section.

Any claimant having a contractual relationship with a subcontractor performing labor or both performing labor and furnishing materials pursuant to a contract with the general contractor but no contractual relationship with the contractor principal furnishing the bond shall have the right to enforce any such claim as provided in subparagraphs (a) and (b) of paragraph (2) only if such claimant gives written notice to the contractor principal within sixty-five days after the day on which the claimant last performed the labor or furnished the labor, materials, equipment, appliances or transportation included in the paragraphs (1) coverage, stating with substantial accuracy the amount claimed, the name of the party for whom such labor was performed or such labor, materials, equipment, appliances or transportation were furnished; provided, that any such claimant shall have the right to enforce any part of a claim covering specially fabricated material included in the paragraph (1) coverage only if such claimant has given the contractor principal written notice of the placement of the order and the amount thereof not later than twenty days after receiving the final approval in writing for the use of the material. The notices provided for in this paragraph (3) shall be served by mailing the same by registered or certified mail postage prepaid in an envelope addressed to the contractor principal at any place at which the contractor principal maintains an office or conducts his business, or at the contractor principal's residence, or in any manner in which civil process may be served.

Upon motion of any party, the court shall advance for speedy trial a petition to enforce a claim pursuant to this section. Sections fifty-nine and fifty-nine B of chapter two hundred thirty-one shall apply to petitions to enforce claims pursuant to this section. The court shall enter an interlocutory decree upon which execution shall issue for any part of a claim found due pursuant to said sections fifty-nine or fifty-nine B and shall, upon motion of any party, advance for speedy trial the petition to enforce the remainder of the claim. Any party aggrieved by such interlocutory decree shall have the right to appeal therefrom as from a final decree. The court shall not consolidate for trial the petition of any claimant under this section with the petition of one or more other claimants on the same bond, unless the court finds that a substantial portion of the evidence of the same events during the course of construction (other than the fact that the claims sought to be consolidated arise under the same general contract) is applicable to the petitions sought to be consolidated, and that such consolidation will prevent unnecessary duplication of evidence.

The court shall not dismiss any petition on the ground that it was filed before the sixty-fifth day after the day the claimant last performed the labor or furnished the labor, materials, equipment, appliances or transportation included in the claim, nor shall the court dismiss any petition on the ground that a claim involves more than one contract with the same party and that the one year period has elapsed as to any one contract; provided, that the court shall not enter a decree upon any claim or part thereof prior to the seventieth day after the day the claimant last performed the labor or furnished the labor, materials, equipment, appliances or transportation included in the claim.

A decree in favor of any claimant under this section shall include reasonable legal fees based upon the time spent and the results accomplished as approved by the court and such legal fees shall not in any event be less than published rate of any recommended fee schedule of a statewide bar association or of a bar association in which the office of counsel for claimant is located, whichever is higher.

Any person employing persons on any public works hereinbefore referred to shall post conspicuously, at such place or places as will provide reasonable opportunity for all employees to read the same, a correct copy of this section. The attorney general shall enforce this paragraph.

ADD new ARTICLE 21: MISCELLANEOUS

21.1 If any portion of the contract price is to be paid by a private citizen(s) no work shall be performed until a sum has been deposited with the Town Treasurer, upon an estimate made by the board, committee or officer having charge of the work, sufficient to cover the payment for the portion of the said work chargeable to the private citizen(s).

21.2 Payments will be made by electronic methods either by credit card or ACH / direct bank deposit to the Contractor's account. The Contractor must provide a completed and signed ACH / direct deposit form. The Contractor must provide the Town an updated form if the bank account used for the deposit is changed during the term of this Contract.

21.3 Notwithstanding anything in the Contract documents to the contrary, any and all payments which the Town is required to make under this Contract shall be subject to appropriation or other availability of funds as certified by the Town Accountant. In the absence of appropriation or availability as certified herein, this Contract shall be immediately terminated without liability for damages, penalties or other charges to the Town. In the event this is a multi-year contract, this Contract shall be subject to annual appropriation and in the event funds are not so appropriated, this Contract shall terminate immediately without liability for damages, penalties or charges to the Town.

21.4 Both the Town and the Contractor acknowledge the provisions of the State Conflict of Interest Law (General Laws Chapter 268A), and this Contract expressly prohibits any activity which shall constitute a violation of that law. The Contractor shall be deemed to have investigated the application of M.G.L. c. 268A to the performance of this Contract; and by executing the Contract documents the Contractor certifies to the Town that neither it nor its agents, employees, or subcontractors are thereby in violation of General Laws Chapter 268A.

21.5 This Contract is only binding upon, and enforceable against, the Town if: (1) the Contract is signed by the Select Board or its designee; and (2) endorsed with approval by the Town Accountant as to appropriation or availability of funds; and (3) endorsed with approval by the Town Counsel as to form.

21.6 To the full extent permitted by law, no official, employee, agent or representative of the Town shall be individually or personally liable on any obligation of the Town under this Contract

21.7 Any materials, reports, information, data, etc. given to or prepared or assembled by the Contractor under this Contract are to be kept confidential and shall not be made available to any individual or organization by the Contractor (except agents, servants, or employees of the Contractor) without the prior written approval of the Town, except as otherwise required by law. The Contractor shall comply with the provisions Chapter 66A of the General Laws of Massachusetts as it relates to public documents, and all other state and federal laws and regulations relating to confidentiality, security, privacy and use of confidential data.

21.8 Any materials produced in whole or in part under this Contract shall not be subject to copyright, except by the Town, in the United States or any other country. The Town shall have unrestricted authority to, without payment of any royalty, commission, or additional fee of any type or nature, publicly disclose, reproduce, distribute and otherwise use, and authorize others to use, in whole or in part, any reports, data or other materials prepared under this Contract.

21.9 All data, reports, programs, software, equipment, furnishings, and any other documentation or product paid for by the Town shall vest in the Town at the termination of this Contract. The Contractor shall at all times, during or after termination of this Contract, obtain the prior written approval of the Town before making any statement bearing on the work performed or data collected under this Contract to the press or issues any material for publication through any medium.

21.10 This Contract and any performance herein shall be governed by and be construed in accordance with the laws of the Commonwealth of Massachusetts. Any and all proceedings or actions relating to subject matter herein shall be brought and maintained in the courts of the Commonwealth or the federal district court sitting in the Commonwealth, which shall have exclusive jurisdiction thereof. This paragraph shall not be construed to limit any other legal rights of the parties.

END OF SECTION 00800

ATTACHMENT A - WAGE RATES AND CERTIFICATE OF COMPLIANCE

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS
Prevailing Wage Rates

MAURA HEALEY
Governor
KIM DRISCOLL
Lt. Governor

As determined by the Director under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 to 27H

LAUREN JONES
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority:	Easton	**City/Town:**	EASTON
Contract Number:	2026-16		
Description of Work:	Repair of scour in the main channel and beneath the abutments, stabilization of the existing dry-laid masonry by void filling with grout and stone within each abutment.		
Job Location:	Main Street Easton, MA		

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, the awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. The updated wage schedule must be provided to all contractors, including general and sub-contractors, working on the construction project.
- This annual update requirement is generally not applicable to 27F “rental of equipment” contracts. For such contracts, the prevailing wage rates issued by DLS shall remain in effect for the duration of the contract term. However, if the prevailing wage rate sheet issued does not contain wage rates for each year covered by the contract term, the Awarding Authority must request updated rate sheets from DLS and provide them to the contractor to ensure the correct rates are being paid throughout the duration of the contract. Additionally, if an Awarding Authority exercises an option to renew or extend the contract term, they must request updated rate sheets form DLS and provide them to the contractor.
- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the “Wage Request Number” on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or a sub-contractor.
- Apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentices must keep their apprentice identification card on their persons during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DAS regardless of whether they are registered with another federal, state, local, or private agency must be paid the journeyworker's rate.**
- Every contractor or subcontractor working on the construction project must submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee’s name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. For a sample payroll reporting form go to http://www.mass.gov/dols/pw.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Contractors must obtain the wage schedules from awarding authorities. Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may file a complaint with the Fair Labor Division of the office of the Attorney General at (617) 727-3465.

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
(2 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$40.95	$16.17	$21.78	$0.00	$0.00	$78.90
	6/1/2026	$41.95	$16.17	$21.78	$0.00	$0.00	$79.90
	12/1/2026	$41.95	$16.17	$23.52	$0.00	$0.00	$81.64
	1/1/2027	$41.95	$16.77	$23.52	$0.00	$0.00	$82.24
(3 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.02	$16.17	$21.78	$0.00	$0.00	$78.97
	6/1/2026	$42.02	$16.17	$21.78	$0.00	$0.00	$79.97
	12/1/2026	$42.02	$16.17	$23.52	$0.00	$0.00	$81.71
	1/1/2027	$42.02	$16.77	$23.52	$0.00	$0.00	$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.14	$16.17	$21.78	$0.00	$0.00	$79.09
	6/1/2026	$42.14	$16.17	$21.78	$0.00	$0.00	$80.09
	12/1/2026	$42.14	$16.17	$23.52	$0.00	$0.00	$81.83
	1/1/2027	$42.14	$16.77	$23.52	$0.00	$0.00	$82.43
ADS/SUBMERSIBLE PILOT PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 1) For apprentice rates see "Apprentice- PILE DRIVER"	1/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
AIR TRACK OPERATOR LABORERS LABORERS - ZONE 2 For apprentice rates see "Apprentice- LABORER"	12/1/2025	$41.22	$10.65	$9.75	$9.11	$0.00	$70.73
	6/1/2026	$42.66	$10.65	$9.75	$9.11	$0.00	$72.17
	12/1/2026	$44.10	$10.65	$9.75	$9.11	$0.00	$73.61
	6/1/2027	$45.55	$10.65	$9.75	$9.11	$0.00	$75.06
	12/1/2027	$47.00	$10.65	$9.75	$9.11	$0.00	$76.51
	6/1/2028	$48.50	$10.65	$9.75	$9.11	$0.00	$78.01
	12/1/2028	$50.00	$10.65	$9.75	$9.11	$0.00	$79.51
AIR TRACK OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY) For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"	12/1/2025	$41.22	$10.65	$9.75	$9.21	$0.00	$70.83
	6/1/2026	$42.66	$10.65	$9.75	$9.21	$0.00	$72.27
	12/1/2026	$44.10	$10.65	$9.75	$9.21	$0.00	$73.71
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (BOSTON)	12/1/2025	$44.80	$14.50	$4.30	$6.75	$0.00	$70.35
ASPHALT RAKER LABORERS LABORERS - ZONE 2 For apprentice rates see "Apprentice- LABORER"	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
ASPHALT RAKER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77
	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE	12/1/2025	$59.28	$16.05	$13.25	$3.25	$0.00	$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.58	$16.05	$13.25	$3.25	$0.00	$93.13
OPERATING ENGINEERS LOCAL 4	12/1/2026	$62.03	$16.05	$13.25	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER	12/1/2025	$59.28	$16.05	$13.25	$3.25	$0.00	$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.58	$16.05	$13.25	$3.25	$0.00	$93.13
OPERATING ENGINEERS LOCAL 4	12/1/2026	$62.03	$16.05	$13.25	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
LABORERS - ZONE 2	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER	12/1/2025	$41.22	$10.65	$9.75	$9.11	$0.00	$70.73
LABORERS	6/1/2026	$42.66	$10.65	$9.75	$9.11	$0.00	$72.17
LABORERS - ZONE 2	12/1/2026	$44.10	$10.65	$9.75	$9.11	$0.00	$73.61
	6/1/2027	$45.55	$10.65	$9.75	$9.11	$0.00	$75.06
	12/1/2027	$47.00	$10.65	$9.75	$9.11	$0.00	$76.51
	6/1/2028	$48.50	$10.65	$9.75	$9.11	$0.00	$78.01
	12/1/2028	$50.00	$10.65	$9.75	$9.11	$0.00	$79.51
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	12/1/2025	$41.22	$10.65	$9.75	$9.21	$0.00	$70.83
LABORERS	6/1/2026	$42.66	$10.65	$9.75	$9.21	$0.00	$72.27
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$44.10	$10.65	$9.75	$9.21	$0.00	$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
BOILER MAKER	1/1/2024	$48.12	$7.07	$14.60	$6.00	$0.00	$75.79
BOILERMAKERS LOCAL 29							
BOILERMAKERS LOCAL 29							

Apprentice: BOILER MAKER

Effective Date: 1/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
2	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
3	70.00	$33.68	$7.07	$10.03	$4.20	$0.00	$54.98
4	75.00	$36.09	$7.07	$10.74	$4.50	$0.00	$58.40
5	80.00	$38.50	$7.07	$11.45	$4.80	$0.00	$61.82
6	85.00	$40.90	$7.07	$12.18	$5.10	$0.00	$65.25

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: BOILER MAKER

Effective Date: 1/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
7	90.00	$43.31	$7.07	$12.88	$5.40	$0.00	$68.66
8	95.00	$45.71	$7.07	$13.62	$5.70	$0.00	$72.10

Apprentice to Journeyworker Ratio: 1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (QUINCY)	2/1/2026	$67.95	$12.84	$15.57	$8.02	$0.00	$104.38
	8/1/2026	$70.15	$12.84	$15.57	$8.02	$0.00	$106.58
	2/1/2027	$71.55	$12.84	$15.57	$8.02	$0.00	$107.98

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.98	$12.84	$15.57	$8.02	$0.00	$70.41
2	60.00	$40.77	$12.84	$15.57	$8.02	$0.00	$77.20
3	70.00	$47.57	$12.84	$15.57	$8.02	$0.00	$84.00
4	80.00	$54.36	$12.84	$15.57	$8.02	$0.00	$90.79
5	90.00	$61.16	$12.84	$15.57	$8.02	$0.00	$97.59

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 8/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$35.08	$12.84	$15.57	$8.02	$0.00	$71.51
2	60.00	$42.09	$12.84	$15.57	$8.02	$0.00	$78.52
3	70.00	$49.11	$12.84	$15.57	$8.02	$0.00	$85.54
4	80.00	$56.12	$12.84	$15.57	$8.02	$0.00	$92.55
5	90.00	$63.14	$12.84	$15.57	$8.02	$0.00	$99.57

Apprentice to Journeyworker Ratio: 1:5

BULLDOZER/GRADER/SCRAPER OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.62	$16.05	$13.25	$3.25	$0.00	$91.17
	6/1/2026	$59.90	$16.05	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.34	$16.05	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CAISSON & UNDERPINNING BOTTOM MAN LABORERS LABORERS - FOUNDATION AND MARINE	12/1/2025	$49.10	$10.65	$9.75	$9.80	$0.00	$79.30
	6/1/2026	$50.65	$10.65	$9.75	$9.80	$0.00	$80.85
	12/1/2026	$52.15	$10.65	$9.75	$9.80	$0.00	$82.35
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER LABORERS	12/1/2025	$47.95	$10.65	$9.75	$9.80	$0.00	$78.15
	6/1/2026	$49.50	$10.65	$9.75	$9.80	$0.00	$79.70

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - FOUNDATION AND MARINE	12/1/2026	$51.00	$10.65	$9.75	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN	12/1/2025	$48.28	$10.65	$9.75	$9.80	$0.00	$78.48
LABORERS	6/1/2026	$49.83	$10.65	$9.75	$9.80	$0.00	$80.03
LABORERS - FOUNDATION AND MARINE	12/1/2026	$51.33	$10.65	$9.75	$9.80	$0.00	$81.53
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
LABORERS - ZONE 2	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
CARPENTER	9/1/2025	$50.35	$10.33	$11.47	$8.50	$0.00	$80.65
CARPENTERS	3/1/2026	$51.60	$10.33	$11.47	$8.50	$0.00	$81.90
CARPENTERS -ZONE 2 (Eastern Massachusetts)	9/1/2026	$52.85	$10.33	$11.47	$8.50	$0.00	$83.15
	3/1/2027	$54.10	$10.33	$11.47	$8.50	$0.00	$84.40

Apprentice: CARPENTER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$22.66	$10.33	$0.00	$1.73	$0.00	$34.72
2	45.00	$22.66	$10.33	$0.00	$1.73	$0.00	$34.72
3	55.00	$27.69	$10.33	$0.00	$3.40	$0.00	$41.42
4	55.00	$27.69	$10.33	$0.00	$3.40	$0.00	$41.42
5	70.00	$35.25	$10.33	$11.41	$5.10	$0.00	$62.09
6	70.00	$35.25	$10.33	$11.41	$5.10	$0.00	$62.09
7	80.00	$40.28	$10.33	$11.44	$6.80	$0.00	$68.85
8	80.00	$40.28	$10.33	$11.44	$6.80	$0.00	$68.85

Apprentice: CARPENTER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$23.22	$10.33	$0.00	$1.73	$0.00	$35.28
2	45.00	$23.22	$10.33	$0.00	$1.73	$0.00	$35.28
3	55.00	$28.38	$10.33	$0.00	$3.40	$0.00	$42.11
4	55.00	$28.38	$10.33	$0.00	$3.40	$0.00	$42.11
5	70.00	$36.12	$10.33	$11.41	$5.10	$0.00	$62.96
6	70.00	$36.12	$10.33	$11.41	$5.10	$0.00	$62.96
7	80.00	$41.28	$10.33	$11.44	$6.80	$0.00	$69.85
8	80.00	$41.28	$10.33	$11.44	$6.80	$0.00	$69.85

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice to Journeyworker Ratio: 1:5							
CARPENTER WOOD FRAME	10/1/2025	$27.75	$7.02	$3.80	$1.00	$0.00	$39.57
CARPENTERS	10/1/2026	$28.85	$7.02	$3.80	$1.00	$0.00	$40.67
CARPENTERS-ZONE 3 (Wood Frame)							
All Aspects of New Wood Frame Work							

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
2	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
3	65.00	$18.04	$7.02	$0.00	$1.00	$0.00	$26.06
4	70.00	$19.43	$7.02	$0.00	$1.00	$0.00	$27.45
5	75.00	$20.81	$7.02	$3.80	$1.00	$0.00	$32.63
6	80.00	$22.20	$7.02	$3.80	$1.00	$0.00	$34.02
7	85.00	$23.59	$7.02	$3.80	$1.00	$0.00	$35.41
8	90.00	$24.98	$7.02	$3.80	$1.00	$0.00	$36.80

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$17.31	$7.02	$0.00	$0.00	$0.00	$24.33
2	60.00	$17.31	$7.02	$0.00	$0.00	$0.00	$24.33
3	65.00	$18.75	$7.02	$0.00	$1.00	$0.00	$26.77
4	70.00	$20.20	$7.02	$0.00	$1.00	$0.00	$28.22
5	75.00	$21.64	$7.02	$3.80	$1.00	$0.00	$33.46
6	80.00	$23.08	$7.02	$3.80	$1.00	$0.00	$34.90
7	85.00	$24.52	$7.02	$3.80	$1.00	$0.00	$36.34
8	90.00	$25.97	$7.02	$3.80	$1.00	$0.00	$37.79

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice to Journeyworker Ratio: 1:5							
CEMENT MASONRY/PLASTERING	1/1/2026	$53.24	$13.35	$16.43	$7.78	$1.80	$92.60
PLASTERERS AND CEMENT MASONS LOCAL 534	7/1/2026	$54.49	$13.35	$16.43	$7.78	$1.80	$93.85
Plasterers and Cement Masons - Zone 1	1/1/2027	$55.94	$13.35	$16.43	$7.78	$1.80	$95.30
	7/1/2027	$57.29	$13.35	$16.43	$7.78	$1.80	$96.65
	1/1/2028	$58.64	$13.35	$16.43	$7.78	$1.80	$98.00

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$26.62	$13.35	$16.43	$0.00	$0.00	$56.40
2	60.00	$31.94	$13.35	$16.43	$7.78	$1.80	$71.30

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	65.00	$34.61	$13.35	$16.43	$7.78	$1.80	$73.97
4	70.00	$37.27	$13.35	$16.43	$7.78	$1.80	$76.63
5	75.00	$39.93	$13.35	$16.43	$7.78	$1.80	$79.29
6	80.00	$42.59	$13.35	$16.43	$7.78	$1.80	$81.95
7	90.00	$47.92	$13.35	$16.43	$0.00	$0.00	$77.70

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 7/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$27.25	$13.35	$16.43	$0.00	$0.00	$57.03
2	60.00	$32.69	$13.35	$16.43	$7.78	$1.80	$72.05
3	65.00	$35.42	$13.35	$16.43	$7.78	$1.80	$74.78
4	70.00	$38.14	$13.35	$16.43	$7.78	$1.80	$77.50
5	75.00	$40.87	$13.35	$16.43	$7.78	$1.80	$80.23
6	80.00	$43.59	$13.35	$16.43	$7.78	$1.80	$82.95
7	90.00	$49.04	$13.35	$0.00	$7.78	$0.00	$70.17

Apprentice to Journeyworker Ratio: 1:5

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CHAIN SAW OPERATOR	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
LABORERS - ZONE 2	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	12/1/2025	$60.48	$16.05	$13.25	$3.25	$0.00	$93.03
OPERATING ENGINEERS LOCAL 4	6/1/2026	$61.81	$16.05	$13.25	$3.25	$0.00	$94.36
OPERATING ENGINEERS LOCAL 4	12/1/2026	$63.29	$16.05	$13.25	$3.25	$0.00	$95.84
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
COMPRESSOR OPERATOR	12/1/2025	$37.97	$16.05	$13.25	$3.25	$0.00	$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	$38.83	$16.05	$13.25	$3.25	$0.00	$71.38
OPERATING ENGINEERS LOCAL 4	12/1/2026	$39.78	$16.05	$13.25	$3.25	$0.00	$72.33
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DELEADER (BRIDGE)	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: DELEADER (BRIDGE)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

DEMO: ADZEMAN LABORERS LABORERS - ZONE 2	12/1/2025	$48.00	$10.65	$9.75	$9.65	$0.00	$78.05
	6/1/2026	$49.55	$10.65	$9.75	$9.65	$0.00	$79.60
	12/7/2026	$51.05	$10.65	$9.75	$9.65	$0.00	$81.10
	6/7/2027	$52.65	$10.65	$9.75	$9.65	$0.00	$82.70
	12/6/2027	$54.25	$10.65	$9.75	$9.65	$0.00	$84.30
	6/5/2028	$55.93	$10.65	$9.75	$9.65	$0.00	$85.98
	12/4/2028	$57.60	$10.65	$9.75	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS LABORERS - ZONE 2	12/1/2025	$49.00	$10.65	$9.75	$9.65	$0.00	$79.05
	6/1/2026	$50.55	$10.65	$9.75	$9.65	$0.00	$80.60
	12/7/2026	$52.05	$10.65	$9.75	$9.65	$0.00	$82.10
	6/7/2027	$53.65	$10.65	$9.75	$9.65	$0.00	$83.70
	12/6/2027	$55.25	$10.65	$9.75	$9.65	$0.00	$85.30
	6/5/2028	$56.93	$10.65	$9.75	$9.65	$0.00	$86.98
	12/4/2028	$58.60	$10.65	$9.75	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BURNERS LABORERS LABORERS - ZONE 2	12/1/2025	$48.75	$10.65	$9.75	$9.65	$0.00	$78.80
	6/1/2026	$50.30	$10.65	$9.75	$9.65	$0.00	$80.35
	12/7/2026	$51.80	$10.65	$9.75	$9.65	$0.00	$81.85
	6/7/2027	$53.40	$10.65	$9.75	$9.65	$0.00	$83.45
	12/6/2027	$55.00	$10.65	$9.75	$9.65	$0.00	$85.05
	6/5/2028	$56.68	$10.65	$9.75	$9.65	$0.00	$86.73
	12/4/2028	$58.35	$10.65	$9.75	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: CONCRETE CUTTER/SAWYER LABORERS LABORERS - ZONE 2	12/1/2025	$49.00	$10.65	$9.75	$9.65	$0.00	$79.05
	6/1/2026	$50.55	$10.65	$9.75	$9.65	$0.00	$80.60
	12/7/2026	$52.05	$10.65	$9.75	$9.65	$0.00	$82.10
	6/7/2027	$53.65	$10.65	$9.75	$9.65	$0.00	$83.70
	12/6/2027	$55.25	$10.65	$9.75	$9.65	$0.00	$85.30
	6/5/2028	$56.93	$10.65	$9.75	$9.65	$0.00	$86.98
	12/4/2028	$58.60	$10.65	$9.75	$9.65	$0.00	$88.65

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"							
DEMO: JACKHAMMER OPERATOR LABORERS LABORERS - ZONE 2	12/1/2025	$48.75	$10.65	$9.75	$9.65	$0.00	$78.80
	6/1/2026	$50.30	$10.65	$9.75	$9.65	$0.00	$80.35
	12/7/2026	$51.80	$10.65	$9.75	$9.65	$0.00	$81.85
	6/7/2027	$53.40	$10.65	$9.75	$9.65	$0.00	$83.45
	12/6/2027	$55.00	$10.65	$9.75	$9.65	$0.00	$85.05
	6/5/2028	$56.68	$10.65	$9.75	$9.65	$0.00	$86.73
	12/4/2028	$58.35	$10.65	$9.75	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER LABORERS LABORERS - ZONE 2	12/1/2025	$48.00	$10.65	$9.75	$9.65	$0.00	$78.05
	6/1/2026	$49.55	$10.65	$9.75	$9.65	$0.00	$79.60
	12/7/2026	$51.05	$10.65	$9.75	$9.65	$0.00	$81.10
	6/7/2027	$52.65	$10.65	$9.75	$9.65	$0.00	$82.70
	12/6/2027	$54.25	$10.65	$9.75	$9.65	$0.00	$84.30
	6/5/2028	$55.93	$10.65	$9.75	$9.65	$0.00	$85.98
	12/4/2028	$57.60	$10.65	$9.75	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DIRECTIONAL DRILL MACHINE OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.62	$16.05	$13.25	$3.25	$0.00	$91.17
	6/1/2026	$59.90	$16.05	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.34	$16.05	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 1)	8/1/2024	$78.11	$10.08	$11.62	$10.04	$0.00	$109.85
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Diver wage 70/80/90 2A $69.83, 3A $91.79,4A $102.14 Total Rate							
DIVER TENDER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 1)	8/1/2024	$55.79	$10.08	$11.62	$12.67	$0.00	$90.16
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Piledriver wage 70/80/90 2A $54.20, 3A $73.93,4A $82.05 Total Rate							
DIVER TENDER (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 1)	8/1/2024	$83.69	$10.08	$11.62	$12.67	$0.00	$118.06
For apprentice rates see "Apprentice- PILE DRIVER"							
DIVER/SLURRY (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 1)	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction) DRAWBRIDGE - SEIU LOCAL 888 DRAWBRIDGE - SEIU LOCAL 888	7/1/2020	$26.77	$6.67	$3.93	$0.00	$0.16	$37.53
ELECTRICIAN ELECTRICIANS LOCAL 223 ELECTRICIANS LOCAL 223	9/1/2025	$52.25	$12.25	$14.86	$3.75	$0.00	$83.11
	9/1/2026	$54.72	$12.50	$15.56	$4.00	$0.00	$86.78

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: ELECTRICIAN

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.90	$12.25	$0.63	$0.00	$0.00	$33.78
2	45.00	$23.51	$12.25	$0.71	$0.00	$0.00	$36.47
3	50.00	$26.13	$12.25	$0.78	$0.00	$0.00	$39.16
4	55.00	$28.74	$12.25	$6.61	$2.50	$0.00	$50.10
5	60.00	$31.35	$12.25	$7.21	$2.50	$0.00	$53.31
6	65.00	$33.96	$12.25	$7.82	$2.50	$0.00	$56.53
7	70.00	$36.58	$12.25	$8.41	$2.50	$0.00	$59.74
8	75.00	$39.19	$12.25	$9.02	$2.50	$0.00	$62.96

Apprentice: ELECTRICIAN

Effective Date: 9/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.89	$12.50	$0.66	$0.00	$0.00	$35.05
2	45.00	$24.62	$12.50	$0.74	$0.00	$0.00	$37.86
3	50.00	$27.36	$12.50	$0.82	$0.00	$0.00	$40.68
4	55.00	$30.10	$12.50	$6.92	$2.75	$0.00	$52.27
5	60.00	$32.83	$12.50	$7.54	$2.75	$0.00	$55.62
6	65.00	$35.57	$12.50	$8.18	$2.75	$0.00	$59.00
7	70.00	$38.30	$12.50	$8.81	$2.75	$0.00	$62.36
8	75.00	$41.04	$12.50	$9.43	$2.75	$0.00	$65.72

Apprentice to Journeyworker Ratio: 2:3

ELEVATOR CONSTRUCTOR	1/1/2026	$77.26	$16.38	$11.06	$10.70	$0.00	$115.40
ELEVATOR CONSTRUCTORS LOCAL 4	1/1/2027	$80.55	$16.48	$11.16	$11.00	$0.00	$119.19
ELEVATOR CONSTRUCTORS LOCAL 4							

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$38.63	$0.00	$0.00	$0.00	$0.00	$38.63
2	55.00	$42.49	$16.38	$11.06	$10.70	$0.00	$80.63
3	65.00	$50.22	$16.38	$11.06	$10.70	$0.00	$88.36
4	70.00	$54.08	$16.38	$11.06	$10.70	$0.00	$92.22
5	80.00	$61.81	$16.38	$11.06	$10.70	$0.00	$99.95

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2027

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$40.28	$0.00	$0.00	$0.00	$0.00	$40.28
2	55.00	$44.30	$16.48	$11.16	$11.00	$0.00	$82.94
3	65.00	$52.36	$16.48	$11.16	$11.00	$0.00	$91.00
4	70.00	$56.39	$16.48	$11.16	$11.00	$0.00	$95.03
5	80.00	$64.44	$16.48	$11.16	$11.00	$0.00	$103.08

Apprentice to Journeyworker Ratio: 1:1

ELEVATOR CONSTRUCTOR HELPER ELEVATOR CONSTRUCTORS LOCAL 4 ELEVATOR CONSTRUCTORS LOCAL 4	1/1/2026	$54.08	$16.38	$11.06	$10.07	$0.00	$91.59
	1/1/2027	$56.39	$16.48	$11.16	$11.00	$0.00	$95.03
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77
	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	11/1/2025	$53.56	$16.05	$13.25	$3.25	$0.00	$86.11
	5/1/2026	$55.00	$16.05	$13.25	$3.25	$0.00	$87.55
	11/1/2026	$56.29	$16.05	$13.25	$3.25	$0.00	$88.84
	5/1/2027	$57.72	$16.05	$13.25	$3.25	$0.00	$90.27
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	11/1/2025	$55.17	$16.05	$13.25	$3.25	$0.00	$87.72
	5/1/2026	$56.62	$16.05	$13.25	$3.25	$0.00	$89.17
	11/1/2026	$57.92	$16.05	$13.25	$3.25	$0.00	$90.47
	5/1/2027	$59.37	$16.05	$13.25	$3.25	$0.00	$91.92
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	11/1/2025	$26.03	$16.05	$13.25	$3.25	$0.00	$58.58
	5/1/2026	$26.88	$16.05	$13.25	$3.25	$0.00	$59.43
	11/1/2026	$27.64	$16.05	$13.25	$3.25	$0.00	$60.19
	5/1/2027	$28.49	$16.05	$13.25	$3.25	$0.00	$61.04
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIRE ALARM INSTALLER ELECTRICIANS LOCAL 223 ELECTRICIANS LOCAL 223	9/1/2025	$52.25	$12.25	$14.86	$3.75	$0.00	$83.11
	9/1/2026	$54.72	$12.50	$15.56	$4.00	$0.00	$86.78
For apprentice rates see "Apprentice- ELECTRICIAN"							
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING ELECTRICIANS LOCAL 223 ELECTRICIANS LOCAL 223	9/1/2025	$52.25	$12.25	$14.86	$3.75	$0.00	$83.11
	9/1/2026	$54.72	$12.50	$15.56	$4.00	$0.00	$86.78
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FIREMAN (ASST. ENGINEER)	12/1/2025	$47.69	$16.05	$13.25	$3.25	$0.00	$80.24
OPERATING ENGINEERS LOCAL 4	6/1/2026	$48.75	$16.05	$13.25	$3.25	$0.00	$81.30
OPERATING ENGINEERS LOCAL 4	12/1/2026	$49.93	$16.05	$13.25	$3.25	$0.00	$82.48

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

FLAGGER & SIGNALER (HEAVY & HIGHWAY)	12/1/2025	$28.09	$10.65	$9.75	$9.21	$0.00	$57.70
LABORERS	6/1/2026	$29.21	$10.65	$9.75	$9.21	$0.00	$58.82
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$29.21	$10.65	$9.75	$9.21	$0.00	$58.82

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)

FLOORCOVERER	9/1/2025	$57.74	$10.33	$11.47	$8.80	$0.00	$88.34
FLOORCOVERERS LOCAL 2168	3/1/2026	$59.24	$10.33	$11.47	$8.80	$0.00	$89.84
FLOORCOVERERS LOCAL 2168 ZONE I	9/1/2026	$60.74	$10.33	$11.47	$8.80	$0.00	$91.34
	3/1/2027	$62.24	$10.33	$11.47	$8.80	$0.00	$92.84

Apprentice: FLOORCOVERER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$25.98	$10.33	$0.00	$1.76	$0.00	$38.07
2	45.00	$25.98	$10.33	$0.00	$1.76	$0.00	$38.07
3	55.00	$31.76	$10.33	$0.00	$3.52	$0.00	$45.61
4	55.00	$31.76	$10.33	$0.00	$3.52	$0.00	$45.61
5	70.00	$40.42	$10.33	$11.47	$5.28	$0.00	$67.50
6	70.00	$40.42	$10.33	$11.47	$5.28	$0.00	$67.50
7	80.00	$46.19	$10.33	$11.47	$7.04	$0.00	$75.03
8	80.00	$46.19	$10.33	$11.47	$7.04	$0.00	$75.03

Apprentice: FLOORCOVERER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$26.66	$10.33	$0.00	$1.76	$0.00	$38.75
2	45.00	$26.66	$10.33	$0.00	$1.76	$0.00	$38.75
3	55.00	$32.58	$10.33	$0.00	$3.52	$0.00	$46.43
4	55.00	$32.58	$10.33	$0.00	$3.52	$0.00	$46.43
5	70.00	$41.47	$10.33	$11.47	$5.28	$0.00	$68.55
6	70.00	$41.47	$10.33	$11.47	$5.28	$0.00	$68.55
7	80.00	$47.39	$10.33	$11.47	$7.04	$0.00	$76.23
8	80.00	$47.39	$10.33	$11.47	$7.04	$0.00	$76.23

Apprentice Notes

Steps are 750 hrs.

Apprentice to Journeyworker Ratio: 1:1

FORK LIFT/CHERRY PICKER	12/1/2025	$59.28	$16.05	$13.25	$3.25	$0.00	$91.83

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.58	$16.05	$13.25	$3.25	$0.00	$93.13
OPERATING ENGINEERS LOCAL 4	12/1/2026	$62.03	$16.05	$13.25	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GENERATOR/LIGHTING PLANT/HEATERS	12/1/2025	$37.97	$16.05	$13.25	$3.25	$0.00	$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	$38.83	$16.05	$13.25	$3.25	$0.00	$71.38
OPERATING ENGINEERS LOCAL 4	12/1/2026	$39.78	$16.05	$13.25	$3.25	$0.00	$72.33
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	1/1/2026	$49.06	$10.35	$12.00	$12.60	$0.00	$84.01
GLAZIERS LOCAL 35							
GLAZIERS LOCAL 35 (ZONE 2)							

Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.53	$10.35	$0.00	$0.00	$0.00	$34.88
2	55.00	$26.98	$10.35	$0.00	$6.88	$0.00	$44.21
3	60.00	$29.44	$10.35	$0.00	$7.50	$0.00	$47.29
4	65.00	$31.89	$10.35	$0.00	$8.13	$0.00	$50.37
5	70.00	$34.34	$10.35	$12.00	$8.75	$0.00	$65.44
6	75.00	$36.80	$10.35	$12.00	$9.38	$0.00	$68.53
7	80.00	$39.25	$10.35	$12.00	$10.00	$0.00	$71.60
8	90.00	$44.15	$10.35	$12.00	$11.25	$0.00	$77.75

Apprentice to Journeyworker Ratio: 1:1

HOISTING ENGINEER/CRANES/GRADALLS	12/1/2025	$59.28	$16.05	$13.25	$3.25	$0.00	$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.58	$16.05	$13.25	$3.25	$0.00	$93.13
OPERATING ENGINEERS LOCAL 4	12/1/2026	$62.03	$16.05	$13.25	$3.25	$0.00	$94.58

Apprentice: HOISTING ENGINEER/CRANES/GRADALLS

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$32.88	$0.00	$0.00	$0.00	$0.00	$32.88
2	60.00	$35.87	$16.05	$13.25	$3.25	$0.00	$68.42
3	65.00	$38.86	$16.05	$13.25	$3.25	$0.00	$71.41
4	70.00	$41.85	$16.05	$13.25	$3.25	$0.00	$74.40
5	75.00	$44.84	$16.05	$13.25	$3.25	$0.00	$77.39
6	80.00	$47.82	$16.05	$13.25	$3.25	$0.00	$80.37
7	85.00	$50.81	$16.05	$13.25	$3.25	$0.00	$83.36
8	90.00	$53.80	$16.05	$13.25	$3.25	$0.00	$86.35

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: HOISTING ENGINEER/CRANES/GRADALLS

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$33.32	$0.00	$0.00	$0.00	$0.00	$33.32
2	60.00	$36.35	$16.05	$13.25	$3.25	$0.00	$68.90
3	65.00	$39.38	$16.05	$13.25	$3.25	$0.00	$71.93
4	70.00	$42.41	$16.50	$13.25	$3.25	$0.00	$75.41
5	75.00	$45.44	$16.50	$13.25	$3.25	$0.00	$78.44
6	80.00	$48.46	$16.50	$13.25	$3.25	$0.00	$81.46
7	85.00	$51.49	$16.50	$13.25	$3.25	$0.00	$84.49
8	90.00	$54.52	$16.50	$13.25	$3.25	$0.00	$87.52

Apprentice to Journeyworker Ratio: 1:6

HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 17 SHEETMETAL WORKERS LOCAL 17 - A	2/1/2026	$62.93	$14.91	$18.74	$9.53	$2.98	$109.09
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 223 ELECTRICIANS LOCAL 223	9/1/2025	$52.25	$12.25	$14.86	$3.75	$0.00	$83.11
	9/1/2026	$54.72	$12.50	$15.56	$4.00	$0.00	$86.78
For apprentice rates see "Apprentice- ELECTRICIAN"							
HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 17 SHEETMETAL WORKERS LOCAL 17 - A	2/1/2026	$62.93	$14.91	$18.74	$9.53	$2.98	$109.09
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (TESTING AND BALANCING -WATER) PLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HVAC MECHANIC PLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HYDRAULIC DRILLS LABORERS LABORERS - ZONE 2	12/1/2025	$41.22	$10.65	$9.75	$9.11	$0.00	$70.73
	6/1/2026	$42.66	$10.65	$9.75	$9.11	$0.00	$72.17
	12/1/2026	$44.10	$10.65	$9.75	$9.11	$0.00	$73.61
	6/1/2027	$45.55	$10.65	$9.75	$9.11	$0.00	$75.06
	12/1/2027	$47.00	$10.65	$9.75	$9.11	$0.00	$76.51
	6/1/2028	$48.50	$10.65	$9.75	$9.11	$0.00	$78.01
	12/1/2028	$50.00	$10.65	$9.75	$9.11	$0.00	$79.51
For apprentice rates see "Apprentice- LABORER"							
HYDRAULIC DRILLS (HEAVY & HIGHWAY) LABORERS	12/1/2025	$41.22	$10.65	$9.75	$9.21	$0.00	$70.83
	6/1/2026	$42.66	$10.65	$9.75	$9.21	$0.00	$72.27

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$44.10	$10.65	$9.75	$9.21	$0.00	$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
INSULATOR (PIPES & TANKS)	9/1/2025	$60.34	$14.75	$9.52	$10.09	$0.00	$94.70
HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (BOSTON)	9/1/2026	$63.76	$14.75	$9.52	$10.09	$0.00	$98.12

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$30.17	$14.75	$9.27	$5.05	$0.00	$59.24
2	60.00	$36.20	$14.75	$9.32	$6.05	$0.00	$66.32
3	70.00	$42.24	$14.75	$9.37	$7.06	$0.00	$73.42
4	80.00	$48.27	$14.75	$9.42	$8.07	$0.00	$80.51

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$31.88	$14.75	$9.27	$5.05	$0.00	$60.95
2	60.00	$38.26	$14.75	$9.32	$6.05	$0.00	$68.38
3	70.00	$44.63	$14.75	$9.37	$7.06	$0.00	$75.81
4	80.00	$51.01	$14.75	$9.42	$8.07	$0.00	$83.25

Apprentice to Journeyworker Ratio: 1:4

IRONWORKER/WELDER IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (BOSTON AREA)	9/16/2025	$57.87	$9.05	$12.75	$14.50	$0.00	$94.17

Apprentice: IRONWORKER/WELDER

Effective Date: 9/16/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$34.72	$9.05	$12.75	$4.50	$0.00	$61.02
2	75.00	$43.40	$9.05	$12.75	$4.50	$0.00	$69.70
3	85.00	$49.19	$9.05	$12.75	$4.50	$0.00	$75.49
4	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Apprentice to Journeyworker Ratio: 1:4

JACKHAMMER & PAVING BREAKER OPERATOR LABORERS LABORERS - ZONE 2	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01

For apprentice rates see "Apprentice- LABORER"

LABORER LABORERS LABORERS - ZONE 2	12/1/2025	$40.47	$10.65	$9.75	$9.11	$0.00	$69.98
	6/1/2026	$41.91	$10.65	$9.75	$9.11	$0.00	$71.42
	12/1/2026	$43.35	$10.65	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.80	$10.65	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.25	$10.65	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.75	$10.65	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.25	$10.65	$9.75	$9.11	$0.00	$78.76

Apprentice: LABORER

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.03	$10.15	$9.50	$9.11	$0.00	$53.79
2	70.00	$29.20	$10.15	$9.50	$9.11	$0.00	$57.96
3	80.00	$33.38	$10.15	$9.50	$9.11	$0.00	$62.14
4	90.00	$37.55	$10.15	$9.50	$9.11	$0.00	$66.31

Apprentice: LABORER

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.15	$10.65	$9.75	$9.11	$0.00	$54.66
2	70.00	$29.34	$10.65	$9.75	$9.11	$0.00	$58.85
3	80.00	$33.53	$10.65	$9.75	$9.11	$0.00	$63.04
4	90.00	$37.72	$10.65	$9.75	$9.11	$0.00	$67.23

Apprentice to Journeyworker Ratio: 1:5

LABORER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	$40.47	$10.65	$9.75	$9.21	$0.00	$70.08
	6/1/2026	$41.91	$10.65	$9.75	$9.21	$0.00	$71.52
	12/1/2026	$43.35	$10.65	$9.75	$9.21	$0.00	$72.96

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.03	$10.15	$9.50	$9.21	$0.00	$53.89
2	70.00	$29.20	$10.15	$9.50	$9.21	$0.00	$58.06
3	80.00	$33.38	$10.15	$9.50	$9.21	$0.00	$62.24
4	90.00	$37.55	$10.15	$9.50	$9.21	$0.00	$66.41

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.15	$10.65	$9.75	$9.21	$0.00	$54.76
2	70.00	$29.34	$10.65	$9.75	$9.21	$0.00	$58.95
3	80.00	$33.53	$10.65	$9.75	$9.21	$0.00	$63.14
4	90.00	$37.72	$10.65	$9.75	$9.10	$0.00	$67.22

Apprentice to Journeyworker Ratio: 1:5

LABORER: CARPENTER TENDER LABORERS LABORERS - ZONE 2	12/1/2025	$40.47	$10.65	$9.75	$9.11	$0.00	$69.98
	6/1/2026	$41.91	$10.65	$9.75	$9.11	$0.00	$71.42
	12/1/2026	$43.35	$10.65	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.80	$10.65	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.25	$10.65	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.75	$10.65	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.25	$10.65	$9.75	$9.11	$0.00	$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: CEMENT FINISHER TENDER LABORERS LABORERS - ZONE 2	12/1/2025	$40.47	$10.65	$9.75	$9.11	$0.00	$69.98
	6/1/2026	$41.91	$10.65	$9.75	$9.11	$0.00	$71.42
	12/1/2026	$43.35	$10.65	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.80	$10.65	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.25	$10.65	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.75	$10.65	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.25	$10.65	$9.75	$9.11	$0.00	$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER LABORERS LABORERS - ZONE 2	12/1/2025	$40.56	$10.65	$9.75	$9.65	$0.00	$70.61
	6/1/2026	$42.00	$10.65	$9.75	$9.65	$0.00	$72.05
	12/7/2026	$43.44	$10.65	$9.75	$9.65	$0.00	$73.49
	6/7/2027	$44.89	$10.65	$9.75	$9.65	$0.00	$74.94
	12/6/2027	$46.34	$10.65	$9.75	$9.65	$0.00	$76.39
	6/5/2028	$47.84	$10.65	$9.75	$9.65	$0.00	$77.89
	12/4/2028	$49.34	$10.65	$9.75	$9.65	$0.00	$79.39
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER LABORERS LABORERS - ZONE 2	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY) LABORERS	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
LABORER: MULTI-TRADE TENDER	12/1/2025	$40.47	$10.65	$9.75	$9.11	$0.00	$69.98
LABORERS	6/1/2026	$41.91	$10.65	$9.75	$9.11	$0.00	$71.42
LABORERS - ZONE 2	12/1/2026	$43.35	$10.65	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.80	$10.65	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.25	$10.65	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.75	$10.65	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.25	$10.65	$9.75	$9.11	$0.00	$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: TREE REMOVER	12/1/2025	$40.47	$10.65	$9.75	$9.11	$0.00	$69.98
LABORERS	6/1/2026	$41.91	$10.65	$9.75	$9.11	$0.00	$71.42
LABORERS - ZONE 2	12/1/2026	$43.35	$10.65	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.80	$10.65	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.25	$10.65	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.75	$10.65	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.25	$10.65	$9.75	$9.11	$0.00	$78.76
This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"							
LASER BEAM OPERATOR	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
LABORERS - ZONE 2	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
LASER BEAM OPERATOR (HEAVY & HIGHWAY)	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
MARBLE & TILE FINISHERS	2/1/2026	$52.08	$12.84	$15.57	$5.78	$0.00	$86.27
BRICKLAYERS LOCAL 3	8/1/2026	$53.84	$12.84	$15.57	$5.78	$0.00	$88.03
BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2027	$54.96	$12.84	$15.57	$5.78	$0.00	$89.15

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$26.04	$12.84	$15.57	$5.78	$0.00	$60.23
2	60.00	$31.25	$12.84	$15.57	$5.78	$0.00	$65.44
3	70.00	$36.46	$12.84	$15.57	$5.78	$0.00	$70.65
4	80.00	$41.66	$12.84	$15.57	$5.78	$0.00	$75.85
5	90.00	$46.87	$12.84	$15.57	$5.78	$0.00	$81.06

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 8/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$26.92	$12.84	$15.57	$5.78	$0.00	$61.11
2	60.00	$32.30	$12.84	$15.57	$5.78	$0.00	$66.49
3	70.00	$37.69	$12.84	$15.57	$5.78	$0.00	$71.88
4	80.00	$43.07	$12.84	$15.57	$5.78	$0.00	$77.26
5	90.00	$48.46	$12.84	$15.57	$5.78	$0.00	$82.65

Apprentice to Journeyworker Ratio: 1:5

MARBLE MASONS,TILELAYERS & TERRAZZO MECH BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2026	$67.97	$12.84	$15.57	$7.99	$0.00	$104.37
	8/1/2026	$70.17	$12.84	$15.57	$7.99	$0.00	$106.57
	2/1/2027	$71.57	$12.84	$15.57	$7.99	$0.00	$107.97

Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.99	$12.84	$15.57	$7.99	$0.00	$70.39
2	60.00	$40.78	$12.84	$15.57	$7.99	$0.00	$77.18
3	70.00	$47.58	$12.84	$15.57	$7.99	$0.00	$83.98
4	80.00	$54.38	$12.84	$15.57	$7.99	$0.00	$90.78
5	90.00	$61.17	$12.84	$15.57	$7.99	$0.00	$97.57

Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH

Effective Date: 8/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$35.09	$12.84	$15.57	$7.99	$0.00	$71.49
2	60.00	$42.10	$12.84	$15.57	$7.99	$0.00	$78.50
3	70.00	$49.12	$12.84	$15.57	$7.99	$0.00	$85.52
4	80.00	$56.14	$12.84	$15.57	$7.99	$0.00	$92.54
5	90.00	$63.15	$12.84	$15.57	$7.99	$0.00	$99.55

Apprentice to Journeyworker Ratio: 1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.62	$16.05	$13.25	$3.25	$0.00	$91.17
	6/1/2026	$59.90	$16.05	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.34	$16.05	$13.25	$3.25	$0.00	$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANICS MAINTENANCE OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.62	$16.05	$13.25	$3.25	$0.00	$91.17
	6/1/2026	$59.90	$16.05	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.34	$16.05	$13.25	$3.25	$0.00	$93.89

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MILLWRIGHT (Zone 2) MILLWRIGHTS LOCAL 1121 MILLWRIGHTS LOCAL 1121 - Zone 2	1/5/2026	$47.36	$10.08	$11.47	$10.00	$0.00	$78.91

Apprentice: MILLWRIGHT (Zone 2)

Effective Date: 1/5/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$26.05	$10.08	$0.00	$5.50	$0.00	$41.63
2	65.00	$30.78	$10.08	$0.00	$6.50	$0.00	$47.36
3	75.00	$35.52	$10.08	$11.47	$7.50	$0.00	$64.57
4	85.00	$40.26	$10.08	$11.47	$8.50	$0.00	$70.31

Apprentice Notes

Step 1&2 Appr. indentured after 1/6/2020 receive no pension,

Apprentice to Journeyworker Ratio: 1:4

MORTAR MIXER LABORERS LABORERS - ZONE 2	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
OILER (OTHER THAN TRUCK CRANES,GRADALLS) OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$25.68	$16.05	$13.25	$3.25	$0.00	$58.23
	6/1/2026	$26.27	$16.05	$13.25	$3.25	$0.00	$58.82
	12/1/2026	$26.94	$16.05	$13.25	$3.25	$0.00	$59.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OILER (TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$31.65	$16.05	$13.25	$3.25	$0.00	$64.20
	6/1/2026	$32.37	$16.05	$13.25	$3.25	$0.00	$64.92
	12/1/2026	$33.17	$16.05	$13.25	$3.25	$0.00	$65.72
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OTHER POWER DRIVEN EQUIPMENT - CLASS II OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.62	$16.05	$13.25	$3.25	$0.00	$91.17
	6/1/2026	$59.90	$16.05	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.34	$16.05	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 2	1/1/2026	$59.56	$10.35	$12.00	$12.50	$0.00	$94.41

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *	1/1/2026	$50.46	$10.35	$12.00	$12.60	$0.00	$85.41

* If 30% or more of surfaces to be painted are new construction,
NEW paint rate shall be used.
PAINTERS LOCAL 35
PAINTERS LOCAL 35 - ZONE 2

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$25.23	$10.35	$0.00	$0.00	$0.00	$35.58
2	55.00	$27.75	$10.35	$0.00	$6.93	$0.00	$45.03
3	60.00	$30.28	$10.35	$0.00	$7.56	$0.00	$48.19
4	65.00	$32.80	$10.35	$0.00	$8.19	$0.00	$51.34
5	70.00	$35.32	$10.35	$12.00	$8.82	$0.00	$66.49
6	75.00	$37.85	$10.35	$12.00	$9.45	$0.00	$69.65
7	80.00	$40.37	$10.35	$12.00	$10.08	$0.00	$72.80
8	90.00	$45.41	$10.35	$12.00	$11.34	$0.00	$79.10

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)	1/1/2026	$48.52	$10.35	$12.00	$12.60	$0.00	$83.47

PAINTERS LOCAL 35
PAINTERS LOCAL 35 - ZONE 2

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.26	$10.35	$0.00	$0.00	$0.00	$34.61
2	55.00	$26.69	$10.35	$0.00	$6.93	$0.00	$43.97
3	60.00	$29.11	$10.35	$0.00	$7.56	$0.00	$47.02

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
4	65.00	$31.54	$10.35	$0.00	$8.19	$0.00	$50.08
5	70.00	$33.96	$10.35	$12.00	$8.82	$0.00	$65.13
6	75.00	$36.39	$10.35	$12.00	$9.45	$0.00	$68.19
7	80.00	$38.82	$10.35	$12.00	$10.08	$0.00	$71.25
8	90.00	$43.67	$10.35	$12.00	$11.34	$0.00	$77.36

Apprentice to Journeyworker Ratio: 1:1

PAINTER / TAPER (BRUSH, NEW) *	1/1/2026	$49.06	$10.35	$12.00	$12.60	$0.00	$84.01

* If 30% or more of surfaces to be painted are new construction,
NEW paint rate shall be used.
PAINTERS LOCAL 35
PAINTERS LOCAL 35 - ZONE 2

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.53	$10.35	$0.00	$0.00	$0.00	$34.88
2	55.00	$26.98	$10.35	$0.00	$6.93	$0.00	$44.26
3	60.00	$29.44	$10.35	$0.00	$7.56	$0.00	$47.35
4	65.00	$31.89	$10.35	$0.00	$8.19	$0.00	$50.43
5	70.00	$34.34	$10.35	$12.00	$8.82	$0.00	$65.51
6	75.00	$36.80	$10.35	$12.00	$9.45	$0.00	$68.60
7	80.00	$39.25	$10.35	$12.00	$10.08	$0.00	$71.68
8	90.00	$44.15	$10.35	$12.00	$11.34	$0.00	$77.84

Apprentice to Journeyworker Ratio: 1:1

PAINTER / TAPER (BRUSH, REPAINT)	1/1/2026	$47.12	$10.35	$12.00	$12.60	$0.00	$82.07

PAINTERS LOCAL 35
PAINTERS LOCAL 35 - ZONE 2

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$23.56	$10.35	$0.00	$0.00	$0.00	$33.91
2	55.00	$25.92	$10.35	$0.00	$6.93	$0.00	$43.20
3	60.00	$28.27	$10.35	$0.00	$7.56	$0.00	$46.18
4	65.00	$30.63	$10.35	$0.00	$8.19	$0.00	$49.17
5	70.00	$32.98	$10.35	$12.00	$8.82	$0.00	$64.15
6	75.00	$35.34	$10.35	$12.00	$9.45	$0.00	$67.14
7	80.00	$37.70	$10.35	$12.00	$10.08	$0.00	$70.13

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
8	90.00	$42.41	$10.35	$12.00	$11.34	$0.00	$76.10

Apprentice to Journeyworker Ratio: 1:1

PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	$40.47	$10.65	$9.75	$9.21	$0.00	$70.08
	6/1/2026	$41.91	$10.65	$9.75	$9.21	$0.00	$71.52
	12/1/2026	$43.35	$10.65	$9.75	$9.21	$0.00	$72.96
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PANEL & PICKUP TRUCKS DRIVER TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$40.78	$16.17	$21.78	$0.00	$0.00	$78.73
	6/1/2026	$41.78	$16.17	$21.78	$0.00	$0.00	$79.73
	12/1/2026	$41.78	$16.17	$23.52	$0.00	$0.00	$81.47
	1/1/2027	$41.78	$16.77	$23.52	$0.00	$0.00	$82.07
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 1)	8/1/2024	$55.79	$10.08	$11.62	$12.67	$0.00	$90.16
For apprentice rates see "Apprentice- PILE DRIVER"							
PILE DRIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 1)	8/1/2024	$55.79	$10.08	$11.62	$12.67	$0.00	$90.16

Apprentice: PILE DRIVER

Effective Date: 8/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$25.11	$10.08	$0.00	$2.53	$0.00	$37.72
2	55.00	$30.68	$10.08	$0.00	$5.07	$0.00	$45.83
3	70.00	$39.05	$10.08	$11.62	$7.60	$0.00	$68.35
4	80.00	$44.63	$10.08	$11.62	$10.14	$0.00	$76.47

Apprentice to Journeyworker Ratio: 1:5

PIPELAYER LABORERS LABORERS - ZONE 2	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
PIPELAYER (HEAVY & HIGHWAY) LABORERS	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PLUMBER & PIPEFITTER PLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 8/25/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$22.10	$10.15	$2.50	$0.00	$0.00	$34.75
2	50.00	$27.62	$10.15	$2.50	$0.00	$0.00	$40.27
3	60.00	$33.14	$10.15	$8.40	$0.50	$0.00	$52.19
4	70.00	$38.67	$10.15	$13.44	$0.80	$0.00	$63.06
5	80.00	$44.19	$10.15	$16.80	$1.00	$0.00	$72.14

Apprentice to Journeyworker Ratio: 1:3

PNEUMATIC CONTROLS (TEMP.) PLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
PNEUMATIC DRILL/TOOL OPERATOR LABORERS LABORERS - ZONE 2	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77
	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
POWDERMAN & BLASTER LABORERS LABORERS - ZONE 2	12/1/2025	$41.47	$10.65	$9.75	$9.11	$0.00	$70.98
	6/1/2026	$42.91	$10.65	$9.75	$9.11	$0.00	$72.42
	12/1/2026	$44.35	$10.65	$9.75	$9.11	$0.00	$73.86
	6/1/2027	$45.80	$10.65	$9.75	$9.11	$0.00	$75.31
	12/1/2027	$47.25	$10.65	$9.75	$9.11	$0.00	$76.76
	6/1/2028	$48.75	$10.65	$9.75	$9.11	$0.00	$78.26
	12/1/2028	$50.25	$10.65	$9.75	$9.11	$0.00	$79.76
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	$41.47	$10.65	$9.75	$9.21	$0.00	$71.08
	6/1/2026	$42.91	$10.65	$9.75	$9.21	$0.00	$72.52
	12/1/2026	$44.35	$10.65	$9.75	$9.21	$0.00	$73.96

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
POWER SHOVEL/DERRICK/TRENCHING MACHINE	12/1/2025	$59.28	$16.05	$13.25	$3.25	$0.00	$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.58	$16.05	$13.25	$3.25	$0.00	$93.13
OPERATING ENGINEERS LOCAL 4	12/1/2026	$62.03	$16.05	$13.25	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (CONCRETE)	12/1/2025	$58.62	$16.05	$13.25	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.90	$16.05	$13.25	$3.25	$0.00	$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	$61.34	$16.05	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (DEWATERING, OTHER)	12/1/2025	$37.97	$16.05	$13.25	$3.25	$0.00	$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	$38.83	$16.05	$13.25	$3.25	$0.00	$71.38
OPERATING ENGINEERS LOCAL 4	12/1/2026	$39.78	$16.05	$13.25	$3.25	$0.00	$72.33
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
READY-MIX CONCRETE DRIVER	1/1/2025	$27.60	$11.26	$6.15	$0.00	$0.00	$45.01
TEAMSTERS 170							
TEAMSTERS 170 - Dauphinais (Bellingham)							
RECLAIMERS	12/1/2025	$58.62	$16.05	$13.25	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.90	$16.05	$13.25	$3.25	$0.00	$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	$61.34	$16.05	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
RIDE-ON MOTORIZED BUGGY OPERATOR	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
LABORERS - ZONE 2	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
ROLLER/SPREADER/MULCHING MACHINE	12/1/2025	$58.62	$16.05	$13.25	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.90	$16.05	$13.25	$3.25	$0.00	$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	$61.34	$16.05	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)	2/1/2026	$54.78	$13.28	$12.67	$9.03	$0.00	$89.76
ROOFERS LOCAL 33							
ROOFERS LOCAL 33							

Apprentice: ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$27.39	$13.28	$6.52	$9.03	$0.00	$56.22
2	60.00	$32.87	$13.28	$12.67	$9.03	$0.00	$67.85

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	65.00	$35.61	$13.28	$12.67	$9.03	$0.00	$70.59
4	75.00	$41.09	$13.28	$12.67	$9.03	$0.00	$76.07
5	85.00	$46.56	$13.28	$12.67	$9.03	$0.00	$81.54

Apprentice Notes

** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1

Apprentice to Journeyworker Ratio: 1:5

ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 33 ROOFERS LOCAL 33 For apprentice rates see "Apprentice- ROOFER"	2/1/2026	$55.03	$13.28	$12.67	$9.03	$0.00	$90.01
SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 17 SHEETMETAL WORKERS LOCAL 17 - A	2/1/2026	$62.93	$14.91	$18.74	$9.53	$2.98	$109.09

Apprentice: SHEETMETAL WORKER

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	42.00	$26.43	$14.91	$6.19	$0.00	$0.00	$47.53
2	42.00	$26.43	$14.91	$6.19	$0.00	$0.00	$47.53
3	47.00	$29.58	$14.91	$10.93	$1.25	$1.62	$58.29
4	47.00	$29.58	$14.91	$10.93	$1.25	$1.62	$58.29
5	52.00	$32.72	$14.91	$11.66	$1.50	$1.74	$62.53
6	52.00	$32.72	$14.91	$11.66	$1.75	$1.75	$62.79
7	60.00	$37.76	$14.91	$12.84	$2.00	$1.93	$69.44
8	65.00	$40.90	$14.91	$13.58	$2.25	$2.04	$73.68
9	75.00	$47.20	$14.91	$15.06	$2.75	$2.28	$82.20
10	85.00	$53.49	$14.91	$16.53	$2.75	$2.49	$90.17

Apprentice to Journeyworker Ratio: 1:4

SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.53	$16.17	$21.78	$0.00	$0.00	$79.48
	6/1/2026	$42.53	$16.17	$21.78	$0.00	$0.00	$80.48
	12/1/2026	$42.53	$16.17	$23.52	$0.00	$0.00	$82.22
	1/1/2027	$42.53	$16.77	$23.52	$0.00	$0.00	$82.82

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
SPRINKLER FITTER SPRINKLER FITTERS LOCAL 550 SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1	1/1/2026	$72.05	$13.45	$7.45	$18.25	$0.00	$111.20

Apprentice: SPRINKLER FITTER

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	35.00	$25.22	$13.45	$13.84	$0.00	$0.00	$52.51
2	40.00	$28.82	$13.45	$14.75	$0.00	$0.00	$57.02
3	45.00	$32.42	$13.45	$15.67	$0.00	$0.00	$61.54
4	50.00	$36.03	$13.45	$16.57	$0.00	$0.00	$66.05
5	55.00	$39.63	$13.45	$17.49	$0.00	$0.00	$70.57
6	60.00	$43.23	$13.45	$18.40	$0.00	$0.00	$75.08
7	65.00	$46.83	$13.45	$19.32	$0.00	$0.00	$79.60
8	70.00	$50.44	$13.45	$20.22	$0.00	$0.00	$84.11
9	75.00	$54.04	$13.45	$21.15	$0.00	$0.00	$88.64
10	80.00	$57.64	$13.45	$22.05	$0.00	$0.00	$93.14

Apprentice Notes

Apprentice entered prior 9/30/10:

Apprentice to Journeyworker Ratio: 1:3

STEAM BOILER OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.62	$16.05	$13.25	$3.25	$0.00	$91.17
	6/1/2026	$59.90	$16.05	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.34	$16.05	$13.25	$3.25	$0.00	$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.62	$16.05	$13.25	$3.25	$0.00	$91.17
	6/1/2026	$59.90	$16.05	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.34	$16.05	$13.25	$3.25	$0.00	$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

TELECOMMUNICATION TECHNICIAN TELECOMMUNICATION TECHNICIAN ELECTRICIANS LOCAL 223 ELECTRICIANS LOCAL 223	9/1/2025	$42.52	$12.00	$12.05	$3.25	$0.00	$69.82
	9/1/2026	$44.41	$12.25	$12.59	$3.50	$0.00	$72.75
	9/1/2027	$46.51	$12.50	$13.18	$3.75	$0.00	$75.94

For apprentice rates and ratios see "Apprentice- ELECTRICIAN"

TERRAZZO FINISHERS BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2026	$66.89	$12.84	$15.57	$8.02	$0.00	$103.32
	8/1/2026	$69.09	$12.84	$15.57	$8.02	$0.00	$105.52
	2/1/2027	$70.49	$12.84	$15.57	$8.02	$0.00	$106.92

Apprentice: TERRAZZO FINISHERS

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: TERRAZZO FINISHERS

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.45	$12.84	$15.57	$8.02	$0.00	$69.88
2	60.00	$40.13	$12.84	$15.57	$8.02	$0.00	$76.56
3	70.00	$46.82	$12.84	$15.57	$8.02	$0.00	$83.25
4	80.00	$53.51	$12.84	$15.57	$8.02	$0.00	$89.94
5	90.00	$60.20	$12.84	$15.57	$8.02	$0.00	$96.63

Apprentice: TERRAZZO FINISHERS

Effective Date: 8/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.55	$12.84	$15.57	$8.02	$0.00	$70.98
2	60.00	$41.45	$12.84	$15.57	$8.02	$0.00	$77.88
3	70.00	$48.36	$12.84	$15.57	$8.02	$0.00	$84.79
4	80.00	$55.27	$12.84	$15.57	$8.02	$0.00	$91.70
5	90.00	$62.18	$12.84	$15.57	$8.02	$0.00	$98.61

Apprentice to Journeyworker Ratio: 1:5

TEST BORING DRILLER	12/1/2025	$51.95	$10.65	$9.75	$9.80	$0.00	$82.15
LABORERS	6/1/2026	$53.50	$10.65	$9.75	$9.80	$0.00	$83.70
LABORERS - FOUNDATION AND MARINE	12/1/2026	$55.00	$10.65	$9.75	$9.80	$0.00	$85.20
For apprentice rates see "Apprentice- LABORER"							
TEST BORING DRILLER HELPER	12/1/2025	$48.07	$10.65	$9.75	$9.80	$0.00	$78.27
LABORERS	6/1/2026	$49.62	$10.65	$9.75	$9.80	$0.00	$79.82
LABORERS - FOUNDATION AND MARINE	12/1/2026	$51.12	$10.65	$9.75	$9.80	$0.00	$81.32
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER	12/1/2025	$47.95	$10.65	$9.75	$9.80	$0.00	$78.15
LABORERS	6/1/2026	$49.50	$10.65	$9.75	$9.80	$0.00	$79.70
LABORERS - FOUNDATION AND MARINE	12/1/2026	$51.00	$10.65	$9.75	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
TRACTORS/PORTABLE STEAM GENERATORS	12/1/2025	$58.62	$16.05	$13.25	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.90	$16.05	$13.25	$3.25	$0.00	$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	$61.34	$16.05	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT	1/1/2026	$41.82	$16.17	$21.78	$0.00	$0.00	$79.77
TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	$42.82	$16.17	$21.78	$0.00	$0.00	$80.77
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2026	$42.82	$16.17	$23.52	$0.00	$0.00	$82.51
	1/1/2027	$42.82	$16.77	$23.52	$0.00	$0.00	$83.11
TUNNEL WORK - COMPRESSED AIR	12/1/2025	$60.18	$10.65	$9.75	$10.25	$0.00	$90.83

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS LABORERS (COMPRESSED AIR)	6/1/2026	$61.73	$10.65	$9.75	$10.25	$0.00	$92.38
	12/1/2026	$63.23	$10.65	$9.75	$10.25	$0.00	$93.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) LABORERS LABORERS (COMPRESSED AIR)	12/1/2025	$62.18	$10.65	$9.75	$10.25	$0.00	$92.83
	6/1/2026	$63.73	$10.65	$9.75	$10.25	$0.00	$94.38
	12/1/2026	$65.23	$10.65	$9.75	$10.25	$0.00	$95.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR LABORERS LABORERS (FREE AIR TUNNEL)	12/1/2025	$52.25	$10.65	$9.75	$10.25	$0.00	$82.90
	6/1/2026	$53.80	$10.65	$9.75	$10.25	$0.00	$84.45
	12/1/2026	$55.30	$10.65	$9.75	$10.25	$0.00	$85.95
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE) LABORERS LABORERS (FREE AIR TUNNEL)	12/1/2025	$54.25	$10.65	$9.75	$10.25	$0.00	$84.90
	6/1/2026	$55.80	$10.65	$9.75	$10.25	$0.00	$86.45
	12/1/2026	$57.30	$10.65	$9.75	$10.25	$0.00	$87.95
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
WAGON DRILL OPERATOR LABORERS LABORERS - ZONE 2	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
WAGON DRILL OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77
	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
WASTE WATER PUMP OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.28	$16.05	$13.25	$3.25	$0.00	$91.83
	6/1/2026	$60.58	$16.05	$13.25	$3.25	$0.00	$93.13
	12/1/2026	$62.03	$16.05	$13.25	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
WATER METER INSTALLER PLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"							

Additional Apprentice Information

All apprentices must be registered with the Division of Apprenticeship Training(DAS) in accordance with M.G.L.c. 23, §§ 11E-11L. Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the hourly prevailing wage rate established by the Commissioner under the provisions of M.G.L.c. 149, §§ 26-27D.

Apprentice ratios are established by DAS pursuant to M.G.L.c. 23, §§ 11E-11L. Ratios are expressed as the allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified. The ratios listed herein have been taken from relevant private collective bargaining agreements(CBAs) and are provided for illustrative purposes only. They have not been independently verified as being accurate or continuing to be accurate.

Parties having questions regarding what ratio to use should contact DAS.

WEEKLY STATEMENT OF COMPLIANCE

In accordance with Massachusetts General Law c. 149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided. A Payroll Form is available from the Department of Labor Standards (DLS) at mass.gov/dols/pw and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract.

On a weekly basis, every contractor and subcontractor is required to submit a certified copy of their weekly payroll records to the awarding authority; this includes the payroll forms and the Statement of Compliance form. The certified payroll records must be submitted either by regular mail or by e-mail to the awarding authority. Once collected, the awarding authority is required to preserve those records for three years from the date of completion of the project.

Each such contractor and subcontractor shall furnish weekly **and** within 15 days after completion of its portion of the work, to the awarding authority directly by first-class mail or email, a statement, executed by the contractor, subcontractor or by any authorized officer thereof who supervised the payment of wages, this form, accompanied by their payroll:

WEEKLY STATEMENT OF COMPLIANCE

_____, 20____

I, _____, _____
(Name of signatory party) (Title)

do hereby state:

That I pay or supervise the payment of the persons employed by _____ on the _____
(Contractor, subcontractor or public body) (Building or project)

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty nine of the General Laws.

Signature _____

Title _____

Massachusetts Weekly Certified Payroll Report and Workforce Participation Form

Certified Payroll Report: Pursuant to MGL c. 149, s. 27B, **every contractor and subcontractor is required to submit a true and accurate copy of their certified weekly payroll records** to the awarding authority by first-class mail or email. In addition, each weekly payroll must be accompanied by a statement of compliance signed by the employer. Failure to comply may result in the commencement of a criminal action or the issuance of a civil citation.

Workforce Participation Goals: The Commonwealth of Massachusetts has set the following goals for workforce participation for minorities and women. The participation goals for this project shall be 15.3% for minorities and 6.9% for women. The Contractor shall strive to achieve on this project the labor workforce participation goals contained herein. **The Contractor shall enter the number of hours worked in each trade by each employee, identified as woman, minority, or non-minority below.**

Company name:	Address:	Phone number:		Payroll number:
Employer's signature:	**Job title:**	**Contract Number:**	**Taxpayer ID Number:**	**Work week ending:**
Awarding Authority name:	**Public Works project name:**	**Public Works Project Location:**		***Minimum Wage Rate Sheet* number:**
General/Prime Contractor's name:	**Subcontractor's name:**	**Employer hourly fringe benefit contributions**		
		(B+C+D+E) (A x F)		

Employee name and Complete address	Work classification	Project hours Non-Minority	Project hours Minority	Project hours Women	Employee is OSHA 10 certified (?)	Apprentice Rate Percentage (%)	Hours worked							Project hours (A)	Hourly base wage (B)	Health and Welfare Insurance (C/)	ERISA Pension Plan (D)	Supplemental unemployment (E/)	Total Hourly Previous Wage (F)	Project gross wages	Check number (H)
							Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	All other hours						Total gross wages	

Apprenticeship Documentation: Please answer the questions below.

1. Are any apprentice employees identified above? Yes ☐ No ☐
2. If yes, are all apprentice employees identified above currently registered with the Massachusetts Department of Labor Standards' (DLS) Division of Apprentice Standards (DAS)? Yes ☐ No ☐
3. If yes, is a copy of the apprentice Identification (ID) card issued by the MA Department of Labor Standards' (DLS), Division of Apprentice Standards (DAS) included for all apprentice employees identified above? Yes ☐ No ☐

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SECTION 00850

Excerpts from Chapter 149 and Chapter 30 of the Massachusetts General Laws

Certain excerpts from the Massachusetts General Laws are applicable to Construction contracts. Attention is directed to the following Sections of Chapter 149 as amended:

Section 25. "Every employee in public work shall lodge, board, and trade where and with whom he elects; and no person or his agents or employees under contract with the commonwealth, a county, city or town, or with a department, board, commission or officer acting therefor, for the doing of public work shall directly or indirectly require, as a condition of employment therein, that the employee shall lodge, board or trade at a particular place or with a particular person. This section shall be made a part of the contract for such employment."

Section 26. "In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works by the commonwealth, or by a county, town or district, or by persons contracting or subcontracting for such works, preference shall first be given to citizens of the commonwealth who have been residents of the commonwealth for at least six months at the commencement of their employment who are male veterans as defined in clause Forty-third of section seven of chapter four, and who are qualified to perform the work to which the employment relates; and secondly, to citizens of the commonwealth generally who have been residents of the commonwealth for at least six months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, and every contract for such work shall contain a provisions to this effect..."

Section 34. "Every contract, except for the purchase of material or supplies, involving the employment of laborers workmen, mechanics, foremen or inspectors, to which the commonwealth or any county or any town, subject to section thirty, is a party, shall contain a stipulation that no laborer, workman, mechanic, foreman or inspector working within the commonwealth, in the employ of the contractor, subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be required or permitted to work more than eight hours in any one-day or more than forty-eight hours in any one week, or more than six-days in any one week, except in cases of emergency, or in case any town subject to section thirty-one is a party to such a contract, more than eight hours in any one-day except as aforesaid..."

Section 34A. "Every contract for the construction, alteration, maintenance, repair or demolition of or addition to, any public building or other public works for the commonwealth or any political subdivision thereof shall contain stipulations requiring that the contractor shall, before commencing performance of such contract, provide by insurance for the payment of compensation and the furnishing of other benefits under chapter one hundred and fifty-two to all persons to be employed under the contract, and that the contractor shall continue such insurance in full force and effect during the term of

the contract. No officer or agent contracting in behalf of the commonwealth or any political subdivision thereof shall award such a contract until he has been furnished with sufficient proof of compliance with the aforesaid stipulations. Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of the contract and shall operate as an immediate termination thereof. No cancellation of such insurance, whether by the insurer or by the insured, shall be valid unless written notice thereof is given by the party proposing cancellation to the other party and to the officer or agent who awarded the contract at least fifteen-days prior to the intended effective date thereof, which date shall be expressed in said notice. Notice of cancellation sent by the party proposing cancellation by registered mail, postage prepaid, with a return receipt of the addressee requested, shall be a sufficient notice..."

Section 34B. "Every contract for the construction, alteration, maintenance, repair of demolition of, or addition to, any public works for the commonwealth or any political subdivision thereof shall contain stipulations requiring that the contractor shall pay to any reserve police officer employed by him in any city or town the prevailing rate of wage paid to regular police officers employed by him in such city or town."

Attention is directed to the following sections of Chapter 30 of the General Laws of Massachusetts as amended to date:

Section 39F. "(1) Every contract awarded pursuant to sections forty-four A to L inclusive, of chapter one hundred and forty-nine shall contain the following subparagraphs (a) through (i) and every contract awarded pursuant to section thirty-nine M of chapter thirty shall contain the following subparagraphs (a) through (h) and in each case those subparagraphs shall be binding between the general contractor and each subcontractor."

"(a) Forthwith after the general contractor receives payment on account of a periodic estimate, the general contractor shall pay to each subcontractor the amount paid for the labor performed and the materials furnished by that subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

"(b) Not later than the sixty-fifth-day after each subcontractor substantially completes his work in accordance with the plans and specifications, the entire balance due under the subcontract less amounts retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the subcontractor; and the awarding authority shall pay that amount to the general contractor. The general contractor shall forthwith pay to the subcontractor the full amount received from the awarding authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

"(c) Each payment made by the awarding authority to the general contractor pursuant to subparagraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a subcontractor shall be made to the general contractor for the account of that subcontractor; and the awarding authority shall take reasonable steps to compel the general contractor to make each such payment to each such subcontractor. If the awarding authority has received a demand for direct payment from a subcontractor for any amount which has already been included in a payment to the general contractor or which is to be included in a payment to the general contractor for payment to the subcontractor as provided in subparagraphs (a) and (b), the awarding authority shall act upon the demand as provided in this section.

"(d) If, within seventy-days after the subcontractor has substantially completed the subcontract work, the subcontractor has not received from the general contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the subcontractor may demand direct payment of that balance from the awarding authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the awarding authority, and a copy shall be delivered or sent by certified mail to the general contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth-day after the subcontractor has substantially completed the subcontract work. Within ten-days after the subcontractor has delivered or so mailed the demand to the awarding authority and delivered or so mailed a copy to the general contractor, the general contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the awarding authority and a copy shall be delivered to or sent by certified mail to the subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor and of the amount due for each claim made by the general contractor against the subcontractor.

"(e) Within fifteen-days after receipt of the demand by the awarding authority, but in no event prior to the seventieth-day after substantial completion of the subcontract work, the awarding authority shall make direct payment to the subcontractor of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount (i) retained by the awarding authority as the estimated cost of completing the incomplete or unsatisfactory items of

work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the general contractor in the sworn reply; provided, that the awarding authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (d). The awarding authority shall make further direct payments to the subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.

"(f) The awarding authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) in an interest-bearing joint account in the names of the general contractor and the subcontractor in a bank in Massachusetts selected by the awarding authority or agreed upon by the general contractor and the subcontractor and shall notify the general contractor and the subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the general contractor and the subcontractor or as determined by decree of a court of competent jurisdiction.

"(g) All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account or accounts in a bank pursuant to subparagraph (f) shall be made out of amounts payable to the general contractor at the time of receipt of a demand for direct payment from a subcontractor and out of amounts which later become payable to the general contractor and in the order of receipt of such demands from subcontractors. All direct payments shall discharge the obligation of the awarding authority to the general contractor to the extent of such payment.

"(h) The awarding authority shall deduct from payments to a general contractor amounts which, together with the deposits in interest-bearing accounts pursuant to subparagraph (f), are sufficient to satisfy all unpaid balances of demands for direct payment received from subcontractors. All such amounts shall be earmarked for such direct payments, and the subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the general contractor.

"(i) If the subcontractor does not receive payment as provided in subparagraph (a) or if the general contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the subcontractor and the subcontractor does not receive payment for same when due less the deductions provided for in subparagraph (a), the subcontractor may demand direct payment by following the procedure in subparagraph (d) and the general contractor may file a sworn replay as provided in that same subparagraph. A demand made after the first-day of

the month following that for which the subcontractor performed or furnished the labor and materials for which the subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the general contractor. Thereafter the awarding authority shall proceed as provided in subparagraph (e), (f), (g), and (h)."

Section 39G. "Upon substantial completion of the work required by a contract with the commonwealth, or any agency or political subdivision thereof, for the construction, reconstruction, alteration, remodeling, repair or improvement of public ways, including bridges and other highway structures, sewers and water mains, airports and other public works, the contractor shall present in writing to the awarding authority its certification that the work has been substantially completed. Within twenty-one-days thereafter, the awarding authority shall present to the contractor either a written declaration that the work has been substantially completed or an itemized list of incomplete or unsatisfactory work items required by the contract sufficient to demonstrate that the work has not been substantially completed. The awarding authority may include with such list a notice setting forth a reasonable time, which shall not in any even be prior to the contract completion date, within which the contractor must achieve substantial completion of the work. In the event that the awarding authority fails to respond by presentation of a written declaration or itemized list as aforesaid, to the contractor's certificate within the twenty-one-day period, the contractor's certification shall take effect as the awarding authority's declaration that the work has been substantially completed.

"Within sixty-five-days after the effective date of a declaration of substantial completion, the awarding authority shall prepare and forthwith send to the contractor for acceptance a substantial completion estimate for the quantity and price of the work done and all but one percent retainage on that work, including the quantity, price and all but one percent retainage for the undisputed part of each work item and extra work item in dispute but excluding the disputed part thereof, less the estimated cost of completing all incomplete and unsatisfactory work items and less the total periodic payments made to date for the work. The awarding authority also shall deduct from the substantial completion estimate an amount equal to the sum of all demands for direct payment filed by subcontractors and not yet paid to subcontractors or deposited in joint accounts pursuant to section thirty-nine F, but no contract subject to said section thirty-nine F shall contain any other provisions authorizing the awarding authority to deduct any amount by virtue of claims asserted against the contract by subcontractors, material suppliers or other.

"If the awarding authority fails to prepare and send to the contractor any substantial completion estimate required by this section on or before the date hereinabove set forth, the awarding authority shall pay to the contractor interest on the amount which would have been due to the contractor pursuant to such substantial completion estimate at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston from such date to the date on which the awarding authority sends that substantial completion estimate to the contractor for acceptance or to the date

of payment therefor, whichever occurs first. The awarding authority shall include the amount of such interest in the substantial completion estimate.

"Within fifteen-days after the effective date of the declaration of substantial completion, the awarding authority shall send to the contractor by certified mail, return receipt requested, a complete list of all incomplete or unsatisfactory work items, and, unless delayed by causes beyond his control, the contractor shall complete all such work items within forty-five-days after the receipt of such list or before the then contract completion date, whichever is later. If the contractor fails to complete such work within such time, the awarding authority may, subsequent to seven-days' written notice to the contractor by certified mail, return receipt requested, terminate the contract and complete the incomplete or unsatisfactory work items and charge the cost of same to the contractor.

"Within thirty-days after receipt by the awarding authority of a notice from the contractor stating that all of the work required by the contract has been completed, the awarding authority shall prepare and forthwith send to the contractor for acceptance a final estimate for the quantity and price of the work done and all retainage on that work less all payments made to date, unless the awarding authority's inspection shows that work items required by the contract remain incomplete or unsatisfactory, or that documentation required by the contract has not been completed. If the awarding authority fails to prepare and send to the contractor the final estimate within thirty-days after receipt of notice of completion, the awarding authority shall pay to the contractor interest on the amount which would have been due to the contractor pursuant to such final estimate at the rate hereinabove provided from the thirtieth-day after such completion until the date on which the awarding authority sends the final estimate to the contractor for acceptance or the date of payment therefor, whichever occurs first, provided that the awarding authority's inspection shows that not work items required by the contract remain incomplete or unsatisfactory. Interest shall not be paid hereunder on amounts for which interest is required to be paid in connection with the substantial completion estimate as hereinabove provided. The awarding authority shall include the amount of the interest required to be paid hereunder in the final estimate.

"The awarding authority shall pay the amount due pursuant to any periodic, substantial completion or final estimate within thirty-five-days after receipt of written acceptance for such estimate from the contractor and shall pay interest on the amount due pursuant to such estimate at the rate hereinabove provided from that thirty-fifth-day to the date of payment. In the case of periodic payment, the contracting authority may deduct from its payment a retention based on its estimate of the fair value of its claim against the contractor, a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, and a retention to secure satisfactory performance of the contractual work not exceeding five percent of the approved amount of any periodic payments, and the same right to retention shall apply to bonded subcontractors entitled to direct payment under section thirty-nine F of chapter thirty; provided that a five percent value of all items that are planted in the ground shall be deducted from the periodic payments until final acceptance.

"No periodic, substantial completion or final estimate or acceptance or payment thereof shall bar a contractor from reserving all rights to dispute the quantity and amount of, or the failure of the awarding authority to approve a quantity and amount of, all or part of any work item or extra work item.

"Substantial completion, for the purposes of this section, shall mean either that the work required by the contract has been completed except for work having a contract price of less than one percent of the then adjusted total contract price, or substantially all of the work has been completed and opened to public use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the work required by the contract."

Section 39K. "Every contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building by the commonwealth, or by any county, city, town, district, board, commission or other public body, when the amount is more than five thousand dollars in the case of the commonwealth and more than two thousand dollars in the case of any county, city, town, district, board, commission or public body, shall contain the following paragraph: Within fifteen-days (twenty-four-days in the case of the commonwealth) after receipt from the contractor, at the place designated by the awarding authority if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the awarding authority will make a periodic payment to the contractor for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the contractor has title or to which a subcontractor has title and has authorized the contractor to transfer title to the awarding authority, less (1) a retention based on its estimate of the fair value of its claims against the contractor and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, and less (3) a retention not exceeding five percent of the approved amount of the periodic payment. After the receipt of a periodic estimate requesting final payment and within sixty-five-days after (a) the contractor fully completes the work or substantially completes the work so that the value of the work remaining to be done is, in the estimate of the awarding authority, less than one percent of the original contract price, or (b) the contractor substantially completes the work and the awarding authority takes possession for occupancy, whichever occurs first, the awarding authority shall pay the contractor the entire balance due on the contract less, (1) a retention based on its estimate of the fair value of its claims against the contractor and of the cost of completing the incomplete and unsatisfactory items of work less (2) a retention for direct payments to subcontractors based on demand for same in accordance with the provisions of section thirty-nine F, or based on the record of payments by the contractor to the subcontractors under this contract if such record of payment indicates that the contractor has not paid subcontractors as provided in section thirty-nine F. If the awarding authority fails to make payment as herein provided, there shall be added to each such payment daily interest at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston commencing on the first-day after said payment is due and continuing until the payment is delivered or mailed to the contractor; provided,

that no interest shall be due, in any event, on the amount due on a periodic estimate for final payment until fifteen-days (twenty-four-days in the case of the commonwealth) after receipt of such a periodic estimate from the contractor, at the place designated by the awarding authority if such a place is so designated. The contractor agrees to pay to each subcontractor a portion of any such interest paid in accordance with the amount due each subcontractor.

"The awarding authority may make changes in any periodic estimate submitted by the contractor and the payment due on said periodic estimate shall be computed in accordance with the changes so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided, that the awarding authority may, within seven-days after receipt, return to the contractor for correction, any periodic estimate which is not in the required form or which contains computations not arithmetically corrected and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of section thirty-nine G shall not apply to any contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building to which this section applies.

"All periodic estimates shall be submitted to the awarding authority, or to its designee as set forth in writing to the contractor, and the date of receipt by the awarding authority or its designee shall be marked on the estimate. All periodic estimates shall contain a separate item for each filed subtrade and each subtrade listed in sub-bid form as required by specifications and a column listing the amount paid to each filed subcontractor and Sub-subcontractor as of the date the periodic estimate is filed. The person making payment for the awarding authority shall add the daily interest provided for herein to each payment for each day beyond the due date based on the date of receipt marked on the estimate.

"A certificate of the architect to the effect that the contractor has fully or substantially completed the work shall, subject to the provisions of section thirty-nine J, be conclusive for the purposes of this section."

Section 39L. "Public Construction work by foreign corporations; restrictions and reports." The Commonwealth and every county, city, town, district, board, commission or other public body which, as the awarding authority, request proposals, bids or sub-bids for any work in the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or other public works (1) shall not enter into a contract for such work with, and shall not approve as a subcontractor furnishing labor and materials for a part of any such work, a foreign corporation which has not filed with such awarding authority a certificate of the state secretary stating that such corporation has complied with sections three and five of chapter one hundred and eighty-one and the date

of such compliance, and (2) shall report to the state secretary and to the department of corporations and taxation any foreign corporation performing work under such contract or subcontract, and any person, other than a corporation, performing work under such contract or subcontract, and residing or having a principal place of business outside the commonwealth.

Section 39M(b). "Specifications for such contracts, and specifications for contracts awarded pursuant to the provisions of said sections forty-four A to forty-four L of said chapter one hundred and forty-nine, shall be written to provide for full competition for each item of material to be furnished under the contract; except, however, that said specifications may be otherwise written for sound reasons in the public interest stated in writing in the public records of the awarding authority or promptly given in writing by the awarding authority to anyone making a written request therefor, in either instance such writing to be prepared after reasonable investigation. Every such contract shall provide that an item equal to that named or described in the said specifications may be furnished; and an item shall be considered equal to the item so named or described if (1) it is at least equal in quality, durability, appearance, strength and design, (2) it will perform at least equally the function imposed by the general design for or the public work being contracted for or the material being purchased, and (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the said specifications.

"For each item of material the specifications shall provide for either a minimum of three named brands of material or a description of material which can be met by a minimum of three manufacturers or producers, and for the equal of any one of said named or described materials."

Section 39N. "Every contract subject to section forty-four A of Chapter one hundred and forty-nine or subject to section thirty-nine M of chapter thirty shall contain the following paragraph in its entirety and an awarding authority may adopt reasonable rules or regulations in conformity with that paragraph concerning the filing, investigation and settlement of such claims:

"If, during the progress of the work, the contractor or the awarding authority discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the contract documents either the contractor or the contracting authority may request an equitable adjustment in the contract price of the contract applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a contractor, or upon its own initiative, the contracting authority shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the contract documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and contract documents and are of such a nature as to cause an increase or decrease in the cost of performance of the work or a change in the construction methods required for the

performance of the work which results in an increase or decrease in the cost of the work, the contracting authority shall make an equitable adjustment in the contract price and the contract shall be modified in writing accordingly."

Section 39O. "Every contract subject to the provisions of section thirty-nine M of this chapter or subject to section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety....

"(a) The awarding authority may order the general contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to the appropriate for the convenience of the awarding authority; provided however, that if there is a suspension, delay or interruption for fifteen-days or more due to a failure of the awarding authority to act within the time specified in this contract, the awarding authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the general contractor on such increase; and provided further, that the awarding authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

"(b) The general contractor must submit the amount of a claim under provision (a) to the awarding authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the awarding authority shall not approve any costs in the claim incurred more than twenty-days before the general contractor notified the awarding authority in writing of the act or failure to act involved in the claim.

Section 39P. "Every contract subject to section thirty-nine M of this chapter or section forty-four A of chapter on hundred forty-nine which requires the awarding authority, or any official, its architect or engineer to made a decision on interpretation of the specifications, approval of equipment, material or any other approval, or progress of the work, shall require that the decision be made promptly and, in any even, no later than thirty-days after the written submission for decision; but if such decision requires extended investigation and study, the awarding authority, the official, architect or engineer shall, within thirty-days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty-day period and the date by which the decision will be made."

Section 39R(a). "The words defined herein shall have the meaning stated below whenever they appear in this section:

(1) "Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to section thirty-nine M of chapter thirty, sections forty-four A through H, inclusive, of chapter one hundred and forty-nine and sections thirty B through thirty P, inclusive, of chapter seven.

(2) "Contract" means any contract awarded or executed pursuant to sections thirty B through thirty P, inclusive, of chapter seven and any contract awarded or executed pursuant to section thirty-nine M of chapter thirty, or sections forty-four A through H, inclusive, of chapter one hundred and forty-nine, which is for an amount or estimated amount greater than on hundred thousand dollars

(3) "Records" means books of original entry, accounts, checks, bank statements and all other banking documents, correspondence, memoranda, invoices, computer printouts, tapes, discs, papers and other documents or transcribed information of any type, whether expressed in ordinary or machine language.

(4) "Independent Certified Public Accountant" means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his/her residence or principal office and who is in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof. Determination of an accountant's independence shall not be confined to the relationships existing in connection with the filing of reports with the awarding authority.

(5) "Audit," when used in regard to financial statements, means an examination of records by an independent certified public accountant in accordance with generally accepted accounting principles and auditing standards for the purpose of expressing a certified opinion thereon, or, in the alternative, a qualified opinion or a declination to express an opinion for stated reasons.

(6) "Accountant's Report," when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which he/she has made and sets forth his/her opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include as a part thereof a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial

statement is a true and complete statement of the financial condition of the contractor.

(7) "Management," when used herein, means the chief executive officer, partners, principals or other person or persons primarily responsible for the financial and operational policies and practices of the contractor.

(8) Accounting terms, unless otherwise defined herein, shall have a meaning in accordance with generally accepted accounting principles and auditing standards.

(b) Subsection (a)(2) hereof notwithstanding, every agreement or contract awarded or executed pursuant to sections thirty B through thirty P, inclusive, of chapter seven, and pursuant to section thirty-nine M of chapter thirty or to section forth-five A through H, inclusive, of chapter one hundred and forty-nine, shall provide that:

(1) The contractor shall make, and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the contractor, and

(2) Until the expiration of six years after final payment, the awarding authority, office of inspector general, and the deputy commissioner of capital planning and operations shall have the right to examine any books, documents, papers or records of the contractor or of his/her subcontractors that directly pertain to, and involve transactions relating to, the contractor or his/her subcontractors, and

(3) If the agreement is a contract as defined herein, the contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the awarding authority, including in his/her description the date of the change and reasons therefor, and shall accompany said descriptions with a letter from the contractor's independent certified public accountant approving or otherwise commenting on the changes, and

(4) If the agreement is a contract as defined herein, the contractor has filed a statement of management on internal accounting controls as set forth in paragraph (c) below prior to the execution of the contract, and

(5) If the agreement is a contract as defined herein, the contractor has field prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in paragraph (d) below.

(c) Every contractor awarded a contract shall file with the awarding authority a statement of management as to whether the system of internal accounting controls of the contractor and subsidiaries reasonably assures that:

(1) Transactions are executed in accordance with management's general and specific authorization;

(2) Transactions are recorded as necessary:

i. To permit preparation of financial statements in conformity with generally accepted accounting principles, and

ii. To maintain accountability for assets;

(3) Access to assets is permitted only in accordance with management's general or specific authorization; and

(4) The recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

Every contractor awarded a contract shall also file with the awarding authority a statement prepared and signed by an independent certified public accountant, stating that he/she has examined the statement of management on internal accounting controls, and expressing an opinion as to:

(1) Whether the representations of management in response to this paragraph, and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and

(2) Whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.

(d) Every contractor awarded a contract by the commonwealth or by any political subdivision thereof shall annually file with the awarding authority and the deputy commissioner of capital planning and operations during the term of the contract a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an account-ant's report. Such statements shall be made available to the awarding authority upon request.

(e) The office of inspector general, the deputy commissioner for capital planning and operations and any other awarding authority shall enforce the provisions of this section. The deputy commissioner of capital planning and operations may after providing an opportunity for the inspector general and other interested parties to comment, promulgate pursuant to the provisions of chapter thirty A such rules, regulations and guidelines as are necessary to effectuate the purposes of this section. Such rules, regulations and guidelines may be applicable to all awarding authorities. A contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to section forty-four C of chapter one hundred and forty-nine."

(f) Records and statements required to be made, kept or filed under the provisions of this section shall not be public records as defined in section seven of chapter four and shall not be open to public inspection; provided, however, that such records and statements shall be made available pursuant to the provisions of clause (2) of paragraph (b).

Section 40. "Bonds give to the commonwealth, any county, city, town or political subdivision to secure the performance of contracts for the construction or repair of public buildings or other public works may be discharged or released by the awarding authority, upon such terms as it deems expedient, after the expiration of one year from the time of completion, subject to section thirty-nine K, of the work contracted to be done; provided that no claim filed under said bond is pending, and provided further, that no such bonds shall be discharged or released prior to the expiration of all special guarantees provided for in the contract unless new bonds in substitution therefor specifically relating to the unexpired guarantees shall be taken.

EQUAL EMPLOYMENT OPPORTUNITIES

The Contractor and each Subcontractor shall comply with the provisions of the Fair Employment Practices Law of Massachusetts, as amended; with the Rules and Regulations of the Massachusetts Commission Against Discrimination, as in force at the date hereof; and with all other applicable municipal, state and federal laws and regulation regarding equal employment opportunity.

SECTION 01010

SUMMARY OF WORK

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 LOCATION OF WORK

A. The work of this Contract is located in the Town of Easton, Massachusetts, at the following location:

1. Bridge No. E06022 Main Street over Queset Brook, Easton, MA.

1.3 SUMMARY OF WORK

A. In general and without limitation, the work to be done under this contract consists of the construction of scour protection for Bridge No. E06022 Main Street over Queset Brook.

B. The work to be performed shall include the work shown on the Contract Drawings, as specified herein, and as indicated below.

C. All construction activities must also be completed while meeting the requirements of the Appendices of the specifications.

D. The project shall include furnishing all plant, labor, services, equipment, materials, devices, facilities, and appurtenances for the installation of new and salvaged materials, equipment, and facilities for scour protection on Bridge No. E06022 Main Street over Quest Brook. A general description of the work to be performed under this contract shall include, but will not be limited to, the construction operations described herein.

1.4 SCOPE OF WORK

A. Scour Protection for Bridge No. E06022 Main Street over Queset Brook under this contract shall include, but will not be limited to the following:

1. Excavation, stockpiling, temporary storage, re-installation and dispose of excess existing stream bed material.

2. Supply, installation, maintaining, removal and proper disposal of temporary water control for dewatering.

3. Supply and installation of PVC pipe, geotextile fabric, crushed stone, grout bags, grout, and reinforcement.

4. Regrading of stream bed, including supply and installation of additional material consistent with permit requirements;

B. A general description of the work to be performed under this contract shall include, but will not be limited to, the following construction operations:

1. Coordination of all construction activities with the appropriate Local and State Authorities, utilities, trades, and subcontractors.
2. Submission of a construction schedule, sequence of construction (as described herein), list of subcontractors, and proposed source locations for off-site materials.

3. Submission of all required shop, working, interference, and record drawings, in a timely manner, to the Owner, for review. Submission of operation and maintenance manuals, warranties, bonds, and field test reports. Submission of health and safety plan. Submission of demolition plans.

4. Mobilization to the Site and Demobilization from the Site.

5. Providing site security and other construction site control measures, as needed.

6. Protection of existing on-site structures and coordination with on-going Owner operations.

7. Obtaining necessary permits and licenses, complying with and maintaining all items required by applicable permits, and payment of fees.

i. Obtaining necessary permits and licenses include but are not limited to: Building and all other permits and licenses necessary to complete the work. All Town of Easton permit fees shall be waived by the Owner.

ii. Complying with all previously obtained permits included in the specification appendices.

iii. Submit a detailed description prepared by a qualified wetland professional of the installation means and methods of the stream bottom reconstruction to ensure consistent materials throughout the culvert with the upstream and downstream materials; construction of the thalweg, if needed; and qualifications and experience of the wetland professional for review and approval by the Owner and Easton Conservation Commission.

iv. Submit a Frac-out Contingency Plan and documentation of the availability of flocculants within 15 minutes, if needed.

v. Upon completion of the work, submit photographic and other appropriate

documentation by the approved wetland professional that the streambed contains consistent material as the upstream and downstream streambed and mimics the pre-construction condition.

C. The work shall also conform to such additional Drawings and addenda to these Specifications and Drawings as may be published or exhibited prior to the opening of bid proposals and to such drawings in explanation of details, or as may be furnished by the Owner from time to time during the construction.

D. Work and materials which are necessary in the construction but which are not specifically referred to in the Specification, or shown on the Drawings, but implied by the Contract shall be furnished by the Contractor at his/her own cost and expense and shall be such as will correspond with the general character of the work as may be determined by the Owner, whose decisions as to the necessity for and character of such work and materials shall be final and conclusive. It is the intent of these Specifications to produce a complete, finished job whether shown in every detail or not.

1.5 CONTRACTOR'S USE OF PREMISES

A. Contractor shall limit the use of the premises for his/her Work and for storage to allow for:

1. Owner occupancy.

2. Public Use of the Buildings

B. Coordinate use of premises with the Owner.

1. Assume full responsibility for the protection and safekeeping of Products under this Contract, stored on the site.

2. Move any stored products, under contractors' control, which interfere with operations of the Owner of separate contractor.

3. Obtain and pay for the use of additional storage or work areas needed for operations.

C. Contractor shall assume full responsibility for security of all his/her and his/her subcontractors' materials and equipment stored on the site.

D. If directed by the Owner, the Contractor shall move any stored items which interfere with operations of the Owner or other contractors.

E. Contractor will have access to Town water for construction purposes and operation of hydrants shall be authorized by and coordinated with the Easton DPW. Contractor will be responsible for costs associated with water consumed, as well as coordinating with Water Division for installation of water meter and all associated costs.

F. Work hours for the project shall be from 7:00 am to 4:00 pm, Monday through Friday.

G. Parking for Contractor Vehicles shall be coordinated with the Owner.

H. Access Roads on and about the site shall be kept open and free at all times, including public roads.

1.6 OWNER OCCUPANCY

A. Owner will occupy premises during performance of the work for the conduct of his/her normal operations. Coordinate all construction operations with Owner to minimize conflict and to facilitate Owner usage.

1.7 WORK SEQUENCE

A. The Contractor shall submit a sequence of construction for the overall project for the Owner's review and approval. The sequence of work must recognize all Contract requirements including the Work Sequence in the Contract Drawings.

B. The Contractor shall submit a sequence of work for the Owner's review and approval.

C. The Contractor shall notify the Owner a minimum of seven (7) days in advance of any work which may affect or disrupt the operations of the existing well stations. The Owner shall have the final authority for granting a proposed shut-down.

D. Any work that requires the mechanical, instrumentation or electrical isolation of an existing piece of equipment, process or system shall be coordinated with the Owner two (2) weeks prior.

E. Refer to the Contract Drawings for additional requirements.

1.8 SUBMITTALS

A. The Contractor shall submit a sequence of work meeting the requirements of Paragraph 1.7 and the Contract Drawings for the overall project for the Owner's review and approval.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01010

SECTION 01040

PROJECT COORDINATION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 SUMMARY OF WORK

A. This section specifies administrative and supervisory requirements necessary for Project coordination including, but not necessarily limited to:

1. Coordination.

2. Administrative and supervisory personnel.

3. General installation provisions.

4. Cleaning and protection.

B. Progress meetings and preconstruction conferences are included in Section 01200 – Project Meetings.

C. Requirements for the Contractor's Construction Schedule are included Section 01311 – Construction Progress Schedules.

PART 1 - PRODUCTS (NOT USED)

PART 2 - EXECUTION

3.1 GENERAL INSTALLATION PROVISIONS

A. Inspection of Conditions: Inspect the conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner, and at no additional cost to the Owner.

B. Manufacturer's Written Instructions: Comply with manufacturer's written installation instructions and recommendations, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in the Contract Documents.

C. Inspect materials or equipment immediately upon delivery and again prior to installation. Reject damaged and defective items, and at no additional cost to the Owner.

D. Provide attachment and connection devices and methods for securing work. Secure work true to line and level. Allow for expansion and utility movement.

E. Recheck measurements and dimensions before starting installation or erection.

F. Install each component during weather conditions and Project status that will ensure the best possible results. Isolate each part of the completed construction from incompatible material to prevent deterioration.

G. Coordinate temporary enclosures with required inspections and tests, to minimize the necessity of uncovering completed construction for that purpose.

3.2 CLEANING AND PROTECTION

A. During handling and installation, clean and protect construction in progress and adjoining materials in place. Install protective covering to ensure protection from damage or deterioration.

B. Clean and maintain completed construction as frequently as necessary through the remainder of the construction period.

C. Contractor shall be required to sweep public and private roadways to remove all materials related to project activities. The frequency of sweeping shall be based on the condition of the affected roadway.

D. Limiting Exposures: Supervise construction activities to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:

1. Excessive static or dynamic loading.
2. Excessive internal or external pressures.
3. Excessively high or low temperatures.
4. Air contamination or pollution.
5. Water or ice.
6. Solvents.
7. Chemicals.
8. Misalignment.
9. Unprotected storage.
10. Improper shipping or handling.

11. Theft.

12. Vandalism.

3.3 CONTRACT CLOSEOUT

A. Provide in accordance with Section 01700 – Contract Closeout.

END OF SECTION 01040

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SECTION 01046

CONTROL OF WORK

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 EQUIPMENT

A. Furnish equipment which will be efficient, appropriate and large enough to secure a satisfactory quality of work and a rate of progress which will insure the completion of the work within the Contract Time. If at any time such equipment appears to the Owner to be inefficient, inappropriate or insufficient for securing the quality of work required or for producing the rate of progress aforesaid, he/she may order the Contractor to increase the efficiency, change the character or increase the plant equipment and the Contractor shall conform to such order. Failure of the Owner to give such order shall in no way relieve the Contractor of his/her obligations to secure the quality of the work and rate of progress required.

1.3 PRIVATE LAND

A. The Contractor shall not enter or occupy private land outside of easements, except by permission of the land owner or the Owner.

1.4 HAULING, HANDLING, AND STORAGE OF MATERIALS

A. The Contractor shall, at his own expense, handle and haul all materials furnished by him and shall remove any and all of his surplus materials at the completion of the work. The Contractor shall provide suitable and adequate storage for equipment and materials furnished by him that are liable to injury, and shall be responsible for any loss or damage to any equipment or materials by theft, breakage, or otherwise. The Contractor shall be responsible for all damages to the work under construction during its progress and until final completion and acceptance, even though partial payments have been made under the Contract.

1.5 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES

A. The Contractor shall assume full responsibility for the protection of all buildings, structures, and utilities, public or private, including poles, fences, guardrails, signs, services to buildings, utilities in the street, gas pipes, water pipes, hydrants, sewers, drains, and electric and telephone cables, whether or not they are shown on the Drawings. The Contractor shall carefully support and protect all such structures and utilities from injury of any kind. The Contractor is required to comply with all

provisions of the Massachusetts General Laws, Chapter 82, sections 40-40E, otherwise known as DigSafe, and all related regulations. Any damage resulting from the Contractor's operations shall be repaired by him at his expense.

B. Assistance will be given to the Contractor in determining the location of existing services. The Contractor, however, shall bear full responsibility for obtaining all locations of underground structures and utilities (including, but not limited to existing water services, drain lines, and sewers). Services to buildings shall be maintained, and all costs or charges resulting from damage thereto shall be paid by the Contractor.

C. Protection and temporary removal and replacement of existing utilities and structures, as described in this Section, shall be a part of the work under the Contract, and all costs in connection therewith shall be included in the Contract.

D. If, in the opinion of the Owner, permanent relocation of a utility owned by the Town is required, which is not shown on the Plans or the Specifications, he may direct the Contractor, in writing, to perform the work. Work so ordered will be paid for as extra work under the relevant provisions of the General and Supplementary Conditions. If relocation of a privately-owned utility is required, the Town will notify the utility to perform the work as expeditiously as possible. The Contractor shall fully cooperate with the Town and utility, and shall have no claim for delay due to such relocation. The Contractor shall notify public utility companies, in writing, at least 72 hours (excluding Saturdays, Sundays, and legal holidays) before excavating in any public way.

1.6 WATER SYSTEM INTERRUPTION

A. The Contractor shall disrupt the normal functioning of the water distribution system as little as possible.

1.7 MAINTENANCE OF TRAFFIC

A. Unless permission to close a street is received in writing from the proper authority, all debris shall be placed so that vehicular and pedestrian traffic may be maintained at all times. If the Contractor's operations cause traffic hazards, he/she shall repair the road surface, provide temporary ways, erect wheel guards or fences, or take other measures for safety satisfactory to the Owner.

B. When, in the opinion of the Police Department, public safety requires the services of police, the Safety Officer may direct the Contractor to provide manpower to direct traffic within the location of work under this Contract.

C. Under normal circumstances the Contractor shall coordinate the scheduling of all police activities, however, when so directed, the Contractor shall make all arrangements in obtaining the manpower and all invoices for policing.

D. The intent is to ensure public safety by police direction of traffic. Police are not to

serve as watchmen to protect the Contractor's equipment and materials, or to warn pedestrians of such hazards as open trenches.

E. Nothing contained herein shall be construed as relieving the Contractor of any of his/her responsibilities for protection of persons and property under the terms of the Contract.

F. It is the intent of this Contract that traffic is maintained at all times in the areas of construction. The Contractor may be required to halt operations and/or transport material to areas beyond immediate work locations in order to allow minimum traffic disruptions. Access to the site by emergency vehicles, school buses and residents shall be maintained at all times.

G. The Contractor shall be responsible for providing property owners with written notification of proposed construction which may require detours or road closures.

1.8 PROTECTION OF CONSTRUCTION AND EQUIPMENT

A. All newly-constructed work shall be carefully protected from injury in any way. No placing of heavy loads on it shall be allowed, and all portions injured shall be reconstructed by the Contractor at its own expense.

B. All structures shall be protected in a manner approved by the Owner. All such damaged portions of the work shall be completely repaired and made good by the Contractor, at his own expense, and to the satisfaction of the Owner.

C. If, in the final inspection of the work, any defects, faults, or omissions are found, the Contractor shall cause the same to be repaired or removed and replaced by proper materials and workmanship, without extra compensation for the materials and labor required. Further, the Contractor shall be fully responsible for the satisfactory maintenance and repair of the construction, and other work undertaken herein, for at least the guarantee period described in the Contract Documents.

D. The Contractor shall take all necessary precautions to prevent damage to any work during and after construction, and until such work is accepted and taken over by the Owner.

1.9 CARE AND PROTECTION OF PROPERTY AND SURVEY MONUMENTS

A. The Contractor shall be responsible for the preservation of all public and private property, and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property, by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at his expense, to a condition similar or equal to that existing before the damage was done, or he shall make good the damage in another manner acceptable to the Owner.

B. Along the location of this work, all fences, walks, bushes, trees, shrubbery, and

other physical features shall be protected and restored in a thoroughly workmanlike manner. Fences and other features removed by the Contractor shall be replaced in the location indicated on the Drawings as soon as conditions permit. All grass areas beyond the limits of construction, which have been damaged by the Contractor, shall be graded and seeded.

C. Trees close to the work shall be boxed or otherwise protected against injury. The Contractor shall trim all branches that are liable to damage because of his operations, but in no case shall any trees be cut or removed without prior notification of the Town or other person in charge. All injuries to bark, trunk, limbs, and roots of trees shall be repaired by dressing, cutting, and painting according to approved methods using only approved tools and materials.

D. The protection, removal, and replacement of existing physical features along the limit of work shall be a part of the work under the Contract, and all costs in connection therewith shall be included in the Total Bid Price. The Contractor is responsible for protecting and, if required, re-setting survey monuments (bounds). If a bound is in the way of required excavation, the Contractor will provide the Owner/Inspector and/or the Town Engineering Division with as much notice as possible prior to performing excavation near the bound.

1.10 REJECTED MATERIALS AND DEFECTIVE WORK

A. Materials furnished by the Contractor and condemned by the Owner as unsuitable or not in conformity with the Specifications shall forthwith be removed from the work by the Contractor, and shall not be made use of elsewhere in the work. Any errors, defects, or omissions in the execution of the work or in the materials furnished by the Contractor, even though they may have been passed or overlooked or have appeared after the completion of the work, discovered at any time before the final payment is made hereunder, shall be forthwith rectified and made good by and at the expense of the Contractor, and in a manner satisfactory to the Owner. The Contractor shall reimburse the Owner for any expenses, losses, or damages incurred in consequence of any defect, error, omission, or act of the Contractor or his employees, as determined by the Owner, occurring previous to the final payment.

1.11 COORDINATION WITH LOCAL AGENCIES

A. The Contractor shall attend a Pre-Construction Meeting to be held approximately one week prior to start of work. Municipal departments who will also be invited to this meeting include Police, Fire and Conservation. Electric, gas, and phone utility companies will also be invited. The contractor will provide the proposed schedule at that time (see Submittals, Section 01300). Any proposed detours will be reviewed with all potentially affected parties at the Pre-Construction Meeting. If any additional detours are considered after the Pre-Construction Meeting, the Contractor must first get approval from the Owner.

B. The Contractor will immediately notify the utility owner of any utility main breaks.

The emergency contact number for the Easton Department of Public Works during business hours is 781-784-1525. Additional emergency contact information will be exchanged during the pre-construction meeting.

C. The Contractor will be required to reimburse the Owner for the actual cost of the services of the Easton Department of Public Works Personnel required during other than regular working hours. This includes the cost of the Owner/Site Inspectors when inspection is required outside the normal business hours. This cost shall be at the rate of time and one-half of the Inspector's pay rate, to be paid to the Town by the Contractor.

D. The Contractor shall notify the Easton Department of Public Works at least 72 hours prior to the construction of any public improvement so that the Town can have an inspector present if work requires inspection.

E. The Owner will have the authority to reject any work or materials that do not meet with the approval of the Owner, which rejection shall not relieve the Contractor of his obligations to perform the work in accordance with the Plans and Specifications.

F. The Contractor shall assume full responsibility for the protection of all buildings, structures, and utilities, public or private, including poles, signs, services to buildings, utilities in the street, gas pipes, water pipes, hydrants, sewers, drains, curbing, electric and telephone cables, whether or not they are shown on the Drawings. The Contractor shall carefully support and protect all such structures and utilities from injury of any kind. Any damage resulting from the Contractor's operations shall be repaired by him/her at his/her expense.

G. Assistance will be given the Contractor in determining the location of existing services. The Contractor, however, shall bear full responsibility for obtaining all locations of underground structures and utilities (including existing water services, drain lines and sewers). Services to buildings shall be maintained, and all costs or charges resulting from damage thereto shall be paid by the Contractor.

H. Protection and temporary removal and replacement of existing utilities and structures as described in this Section shall be a part of the work under the Contract and all costs in connection therewith shall be included in the Total Price Bid in the Bid Form.

I. If, in the opinion of the Owner, permanent relocation of a utility owned by the Town is required, he/she may direct the Contractor, in writing, to perform the work. Work so ordered will be paid for as extra work under the relevant provisions of the General and Supplementary Conditions. If relocation of a privately owned utility is required, the Easton Department of Public Works will notify the Utility to perform the work as expeditiously as possible. The Contractor shall fully cooperate with the Department of Public Works and the Utility and shall have no claim for delay due to such relocation. The Contractor shall notify all utility companies in writing at least 72 hours (excluding Saturdays, Sundays and Legal holidays) before

excavating in any public way. Contractor shall also notify Massachusetts Dig Safe, telephone 1-888- 344-7233 at least 72 hours prior to start of work.

The following is a partial list of Owners of Utilities:

Water:
Easton Department of Public Works
417 Bay Road
Easton, MA 02375
Telephone: (508) 230-0850

Gas:
Eversource Gas of Massachusetts
Telephone: 1 (800) 592-2000

Electric:
National Grid
Telephone: 1 (800) 465-1212

Telephone & Internet:
Comcast
Telephone: 1 (800) 266-2278

DIGSAFE:
Telephone: 1 (888) 344-7233

Propane Plus:
Telephone: 1 (508) 252-3359

Fiber Optic:
Phoenix Communication
Telephone 1 (508) 450-9592

1.12 WATER FOR CONSTRUCTION PURPOSES

A. The express approval of the Owner shall be obtained before Town water is used. Any Contractor proposing to use Town water must meet all requirements of the Town of Easton, including cross connection protection, before using any Town water. Waste of water by the Contractor shall be sufficient cause for withdrawing the privilege of unrestricted use.

B. Hydrants shall only be operated under the supervision of the Owner's personnel.

C. The Contractor shall furnish all water required for and in connection with work to be done under this Contract including but not limited to: water for preparing grout and cleaning equipment; temporary potable water; sanitation and toilet facilities; facility start-up/commissioning of all equipment; and as required to complete the

Work.

D. All water for construction purposes shall be metered, in cubic feet, as specified by the Town. Where metering is not possible (i.e. in the case of filling pipes and tanks), water volume can be calculated. The volume of all water used by the Contractor is to be determined and provided to the Owner.

E. The Contractor must supply their own backflow prevention device and flow meter. The backflow prevention device and flow meter must be tested and certified by the Town of Easton Water Division.

F. No separate measurement and payment shall be made for temporary water and all costs shall be incidental to and included with each applicable item.

1.13 MAINTENANCE OF FLOW

A. The Contractor shall maintain the flow in all watercourses, whether open channels or in pipes, in all sewers and other pipes interfered with in the line of work and convey the flow to a suitable point of discharge so as not to flow upon the work or create a nuisance. In the discharge of water removed from the excavations by pumping or by gravity similar precautions shall be observed.

1.14 COOPERATION WITHIN THIS CONTRACT

A. All firms or persons authorized to perform any work under this Contract shall cooperate with General Contractor and his/her Subcontractors or trades and shall assist in incorporating the work of other trades where necessary or required.

B. Cutting and patching, drilling and fitting shall be carried out where required by the trade or subcontractor having jurisdiction, unless otherwise indicated herein or directed by the Owner.

1.15 CLEANUP AND DISPOSAL OF EXCESS MATERIAL

A. During the course of the work, the Contractor shall keep the site of his/her operations in as clean and neat a condition as is possible. He/She shall dispose of all residue resulting from the construction work and, at the conclusion of the work, he/she shall remove and haul away any surplus excavation, broken pavement, lumber, equipment, temporary structures and any other refuse remaining from the construction operations and shall leave the entire site of the work in a neat and orderly condition.

B. In order to prevent environmental pollution arising from the construction activities related to the performance of this Contract, the Contractor and his/her subcontractors shall comply with all applicable Federal, State and local laws and regulations concerning waste material disposal, as well as the specific requirements stated in this Section and elsewhere in the Specifications.

C. The Contractor is advised that the disposal of excess excavated material in wetlands, stream corridors and plains is strictly prohibited even if the permission of the property owner is obtained. Any violation of this restriction by the Contractor or any person employed by him, will be brought to the immediate attention of the responsible regulatory agencies, with a request that appropriate action be taken against the offending parties. Therefore, the Contractor will be required to remove the fill at his/her own expense and restore the area impacted.

D. Outdoor burning of rubbish and waste material on the site will not be permitted.

E. Disposal of volatile fluid wastes (such as mineral spirits, oil, gasoline, or paint thinner) in storm or sanitary sewer systems or into streams or waterways is not permitted.

F. The Contractor shall restore or replace, when and as directed, any public or private property damaged by his work, equipment, or employees, to a condition at least equal to that existing immediately prior to the beginning of operations. To this end the Contractor shall do as required all necessary highway or driveway, walk, and landscaping work. Suitable materials, equipment, and methods shall be used for such restoration. The restoration of existing property or structures shall be done as promptly as practicable as work progresses and shall not be left until the end of the contract period.

G. The excavation of contaminated soils is not anticipated. However, if any contaminated soil and groundwater is encountered during construction, notify MassDEP. Manage any contaminated soil and groundwater encountered during construction in accordance with applicable Massachusetts Contingency Plan (MCP) requirements and under the supervision of a Licensed Site Professional (LSP).

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01046

SECTION 01050

FIELD ENGINEERING

PART 1 – GENERAL

1.2 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.3 SUMMARY OF WORK

A. The work covered under this Section of the Specifications includes the following:

1. Examination of site and conditions of construction.

2. Establishment of lines, grades, and easements.

3. Connections to existing facilities.

4. Restoration and protection of public and private property.

5. Preparation and submittal of As-Built Plans

1.4 SUBMITTALS

A. Shop Drawings: Submit the following in accordance with Section 01300 – Submittals:

1. A pre- and post-construction record of condition survey shall be provided by the Contractor. Provide written documentation and photographs of the condition identified, or a good quality videotape survey with appropriate audio description of conditions and defects.

   i. Prior to the start of the work, one copy of the Contractor's pre-construction record of condition survey shall be submitted to the Owner for information and retention.

   ii. Following substantial completion, one copy of the Contractor's post-construction record of condition survey shall be submitted to the Owner for information and retention.

2. Submit an As-Built Plan in PDF formation, as well as AutoCAD .dwg file, (using the MA state plane coordinate system or have 3 or more elements that tie into the state plane coordinate system, including but not limited to utility structures in the ROW, utility poles and house corners), signed and stamped by a registered professional engineer or registered land surveyor, that includes but is not limited to, all final work completed in compliance with the proposed and

approved work listed in the Order of Conditions, all regrading, visual parries and resource areas.

3. Submit a letter from the registered professional engineer or registered land surveyor describing compliance with the Order of Conditions and explain any deviations from the approved plan.

1.5 PROJECT/SITE CONDITIONS

1. Unfavorable Construction Conditions:

i. During unfavorable weather, wet grounds, or other unsuitable construction conditions, confine operations to work which will not be affected adversely by such conditions.

ii. No portion of Work shall be constructed under conditions which adversely affect quality or efficiency thereof, unless special means or precautions are taken to perform Work in manner acceptable to the Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Use new materials in restoration of existing facilities and as approved by the Owner.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examination of Site and Verification of Conditions:

1. Before starting operations, examine site to become acquainted with conditions to be encountered.

2. Verify exact locations of sewers, water mains, gas mains, above or below ground electrical wires, other utilities, conduits and structures which may interfere with work.

3.2 APPLICATION

1. The Contractor shall also:

i. Give seven days' notice in writing, to the owner of the property concerned, and tenants of the property. Advise in notice the dates on which surveys are to be made so that they may have representatives present during the examination. Provide copies of all notices to the Owner.

ii. The Contractor's record of the pre-construction survey shall consist of written documentation and photographs of the condition identified, or a good quality videotape survey with appropriate audio description of conditions and defects. Prior to the start of the work, one copy of the Contractor's record of condition survey shall be submitted to the Owner for information and retention.

iii. Any damage noted prior to substantial completion which cannot be determined from the pre-construction survey to be a pre-existing condition shall be presumed to have been caused by construction operations. Such damage shall be repaired promptly and completely to the property owner's satisfaction to restore the condition of the property to that existing prior to blasting.

iv. Pre-construction survey records shall be maintained for a period of not less than three years following final completion and acceptance of the Work.

B. Connections to Existing Facilities:

1. Make connections to existing facilities as indicated on drawings or as specified.

2. Obtain permission from specific utility owners in writing prior to undertaking connections.

i. Protect facilities against deleterious substances and damage.

3. Plan in advance all connections to existing facilities which are in service.

i. All equipment, materials, and labor shall be on hand at time of undertaking connections to existing facilities in service.

ii. Work shall proceed continuously if necessary to complete connections within the time designated by the Owner.

iii. Existing water distribution systems to be connected to shall not be taken out of service during periods of high demand; coordinate any disruptions to service with the Owner.

iv. Refer to Section 01010 – Summary of Work and Contract Drawings for additional work sequence requirements.

C. Restoration and Protection of Public and Private Property:

1. Restore all public and private property including pavement, surfacing, curbs, walks, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with all loam and seed and landscaping to their original condition or better, whether within or outside easements.

3.3 CONTRACT CLOSEOUT

A. Provide in accordance with Section 01700 – Contract Closeout

END OF SECTION 01050

SECTION 01095

REFERENCE STANDARDS AND DEFINITIONS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 DEFINITIONS

A. General: Basic Contract definitions are included in the Conditions of the Contract.

B. Indicated: The term indicated refers to graphic representations, notes, or schedules on the Drawings, or other paragraphs or schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as shown, noted, scheduled, and specified are used to help the reader locate the reference. There is no limitation on location.

C. Directed: Terms such as directed, requested, authorized, selected, approved, required, and permitted mean directed by the Owner, requested by the Owner, and similar phrases.

D. Approve: The term approved, when used in conjunction with the Owner's action on the Contractor's submittals, applications, and requests, is limited to the Owner's duties and responsibilities as stated in the Conditions of the Contract.

E. Regulation: The term regulations includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the work.

F. Furnish: The term furnish means supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations.

G. Install: The term install describes operations at the project site, including the actual unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

H. Replace: The term replace means dismantle, remove, and dispose of existing equipment and materials and furnish and install new specified item.

I. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

J. Remove and Salvage: Detach items from existing construction and deliver them to the Owner ready for reuse, at a location designated by the Owner. Protect from

weather until accepted by the Owner.

K. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated. Protect from weather until reinstallation.

L. Provide: The term provide means to furnish and install, complete and ready for the intended use.

1. The term experienced, when used with the term Installer, means having a minimum of five previous projects similar in size and scope to this project, being familiar with the special requirements indicated, and having complied with requirements of the authority having jurisdiction.

2. Trades: Using terms such as carpentry is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such a carpenter. It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.

M. Project Site is the space available to the Contractor for performing construction activities, either exclusively or in conjunction with others performing other work as part of the project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the project is to be built.

N. Testing Agencies: A testing agency is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

1.3 INDUSTRY STANDARDS

A. Applicability of Standards: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

B. Publication Dates: Comply with the standards in effect as of the date of the Contract Documents.

C. Conflicting Requirements: Where compliance with two or more standards is specified, and where the standards may establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different, but apparently equal, and uncertainties to the Owner for a decision before proceeding.

1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation

may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Refer uncertainties to the Owner for a decision before proceeding.

D. Copies of Standards: Each entity engaged in construction on the project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source.

E. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. The following acronyms or abbreviations, as referenced in Contract Documents, are defined to mean the associated names. Names and addresses are subject to change and are believed, but not assured, to be accurate and up-to-date as of date of Contract Documents.

ACI American Concrete Institute

P.O. Box 19150

Detroit, Michigan 48219-0150

Telephone: (313) 532-2600

Asphalt Institute

Research Park Drive

P.O. Box 14052

Lexington, Kentucky 40512-4052

Telephone: (606) 288-4960

ANSI American National Standards Institute

11 West 42nd Street

13th Floor

New York, New York 10036

Telephone: (212) 642-3300

ASTM American Society for Testing and Materials

1916 Race Street

Philadelphia, Pennsylvania 19103

Telephone: (215) 299-5400

AWWA American Water Works Association

6666 West Quincy Avenue

Denver, Colorado 80235

Telephone: (303) 794-7711

UL Industrial Control Panels

85 John Road

Canton, Massachusetts 02021

Telephone: (781) 821 2200

MSS Manufacturers Standardization Society of the Valve and Fittings Industry

127 Park Street, N.E.

Vienna, Virginia 22180

Telephone: (703) 281-6613

NAPA National Asphalt Pavement Association

6811 Kenilworth Avenue

Calvert Building

Suite 620

Riverdale, Maryland 20737

Telephone: (301) 779-4880

NFPA National Fire Protection Association

One Batterymarch Park

Quincy, MA 02169

Telephone: (617)- 770-

3000 WSC Water Systems Council

600 South Federal Street

Suite 400

Chicago, Illinois 60605

Telephone: (312) 922-6222

F. Federal Government Agencies: Names and titles of Federal Government standard- or specification-producing agencies are often abbreviated. The following acronyms or abbreviations referenced in the Contract Documents indicate names of standard- or specification-producing agencies of the Federal Government. Names and addresses are subject to change and are believed, but not assured, to be accurate and up-to-date as of the date of the Contract Documents.

CFR Code of Federal Regulations

(available from the Government Printing Office)

North Capitol Street between G and H Streets,

N.W. Washington, D.C. 20402

Telephone: (202) 783-3238

(Material is usually first published in the Federal Register)

EPA Environmental Protection Agency

401 M Street, S.W.

Washington, D.C. 20460

Telephone: (202) 382-2090

NIST National Institute of Standards and Technology

(U.S. Department of Commerce)

Gaithersburg, Maryland 20899

Telephone: (301) 975-2000

OSHA Occupational Safety and Health Administration

(U.S. Department of Labor)

Government Printing Office

Washington, D.C. 20402

Telephone: (202) 523-6091

1.4 GOVERNING REGULATIONS AND AUTHORITIES

A. The Owner has contacted authorities having jurisdiction where necessary to obtain information to prepare Contract Documents. Contact authorities having jurisdiction directly for information and decisions regarding the work.

Town of Easton Department of Public Works
Telephone: (508) 230-0850

1.5 SUBMITTALS

A. Permits, Licenses, and Certificates: For the Owner's records, submit copies of permits, licenses, certifications, warranties, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence, and records established in conjunction with compliance with standards and regulations bearing upon performance of the work.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01095

SECTION 01170

SPECIAL PROVISIONS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 SUMMARY OF WORK

A. This section specifies the general requirements for the special provisions required in the construction of the work. Specific requirements, if any, are specified with the related item.

1.3 SUBMITTALS

A. Provide shop, working, interference, and record drawings as necessary in accordance with Section 01300 - Submittals.

1.4 GENERAL OBLIGATIONS OF THE CONTRACTOR

A. General obligations of the Contractor shall be as set forth in the Contract Documents. Unless special payment is specifically provided in the payment paragraphs of the specifications, all incidental work and expense in connection with the completion of work under the Contract will be considered a subsidiary obligation of the Contractor and all such costs shall be included in the appropriate items in the Bid Form in connection with which the costs are incurred.

1.5 SITE INVESTIGATION

A. The Contractor shall satisfy himself/herself as to the conditions existing within the project area, the type of equipment required to perform the work, the character, quality and quantity of the subsurface materials to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, as well as from information presented by the Drawings and Specifications. Any failure of the Contractor to acquaint himself/herself with the available information will not relieve him/her from the responsibility for estimating properly the difficulty or cost of successfully performing the work. The Owner assumes no responsibility for any conclusions or interpretation made by the Contractor on the basis of the information made available by the Owner.

1.6 CONTRACTOR'S EMERGENCY CONTACT AND RESPONSE REQUIREMENT

The Contractor will be required to designate a contact person as well as an emergency

response crew who can be notified by the Owner during Contract related emergencies, 7 days a week, 24 hours a day throughout the length of this Contract.

A. The name of the designated person, a daytime contact telephone number, an evening contact telephone number, and a cellular telephone number must be furnished to the Owner at the pre-construction meeting. The Contractor must also provide a cellular telephone that will remain at the construction site during the hours of construction.

B. The contact person shall be required to respond to any Owner notification in this regard within one hour of such notice, contact phone numbers shall be provided at the pre-construction meeting. Upon being advised by the Owner of the location and nature of the emergency, the Contractor will be required to provide an emergency coordinator or contact at the site within one hour of the initial notification and to mobilize the necessary response crew(s) and have them at the site of the emergency within two hours of the initial notification.

C. The Contractor's failure to comply with the above notification and response requirements shall result in a one thousand dollar ($1,000.00) fine for each failure to respond as indicted in 1.6.C. In addition, the Contractor shall be liable for any and all damages, liabilities and costs which result from his/her failure to respond to any emergency within the designated time periods. The Owner assumes no responsibility or costs for the Contractor's negligence in complying with these requirements. If the subject fine or other liabilities are not paid by the Contractor upon request, it shall be deducted from any payment(s) which may be due the Contractor by the Owner, solely at the discretion of the Owner.

D. The Contractor shall not use any Owner or municipal personnel to fulfill these requirements.

E. This requirement shall be considered an incidental part of the Contract, no matter how many times the Contractor is alerted during this Contract, and no payment will be made for any costs incurred or associated with the emergency contact and response requirements.

1.7 PUBLIC UTILITIES

A. The Contractor shall comply with the requirements of the Massachusetts General Laws, Chapter 82A, for excavations in public and private property. Compliance shall include the following:

1. The Contractor shall immediately notify utility companies of any damage to their utilities resulting from construction operations.

2. The express approval of the Owner shall be obtained before public water is used. Hydrants shall only be operated under the supervision of the Owner's personnel. The water is to be metered. A meter must be obtained from the Town of Easton. The Contractor will be responsible for all associated fees and charges

for water use.

B. The Contractor shall notify DIGSAFE at 1-888-344-7233 at least 72 hours before digging, trenching, blasting, demolishing, boring, backfilling, grading, landscaping or other earth moving operations in any public ways, rights of way and easements.

1.8 PERMITS

A. The Contractor shall be required to obtain all necessary permits for proper execution of certain phases of the project. The Contractor shall fill out all forms and furnish all drawings required to obtain the permits. A copy of the approved permit shall be submitted to the Owner. All fees associated with these permits shall be paid by the Contractor as part of the project with the exception of any Town of Easton permits where fees shall be waived by the Owner. Work shall not commence on any phase of the work requiring a permit until the permit is obtained.

B. All construction activities must be completed while meeting the requirements of previously obtained permits; refer to the Appendices of the specifications for permit approvals.

1.9 COORDINATION

A. Drawings are diagrammatic. They indicate general arrangements of work. They do not show all offsets required for coordination nor do they show the exact routings and locations needed to coordinate between trades.

B. Work shall be performed in cooperation between trades on the project and so scheduled to allow speedy and efficient completion of the work.

C. Furnish to trades advance information on locations and sizes of all frames, boxes, sleeves and openings needed for their work, and also furnish information necessary to permit trades affected by the work to install same properly and without delay.

D. The work of the various trades shall be coordinated to avoid interference and to secure maximum head room. Particular attention is drawn to congested spaces inside and outside of the structures. If, in the interest of coordination and expediency, it becomes necessary to develop “interference drawings” (defined as drawings embodying the work of trades involved, illustrating details or construction proposed by the contractor and arrangement of actual equipment and apparatus purchased), such drawings shall be prepared by the Contractor and shall be coordinated with other trades at no additional expense to the Owner.

E. If work has been installed before coordination with other trades so as to cause interference with the work of other trades, all necessary adjustments and corrections shall be made by the trades involved without extra cost to the Owner.

F. Where conflicts or potential conflicts exist and engineering guidance is desired, submit sketch of proposed resolution to the Owner for review and approval.

G. Protect all materials and work of trades from damage which may be caused by other trade work, and repair all damages without extra cost to the Owner.

1.10 MAINTAINING EXISTING WORKS

A. The Contractor shall maintain the existing works to the maximum extent possible for the duration of construction.

1.11 MINIMIZING INTERFERENCE

A. The Contractor shall have all materials and equipment on-site, and shall receive the Owner's approval prior to initiating Work which requires any part of the pumpstations to be offline. The downtime for any process or piece of equipment shall be limited to the maximum extent possible.

B. The Contractor shall conduct his/her operations so as to interfere as little as possible with the existing operations.

C. The existing water system is active.

D. The Contractor shall submit a detailed schedule for the work at each site, including work to be completed by sub-contractors, for Owner review. During an emergency condition, the Owner reserves the right to bring a facility on-line with 24 hours' notice to the Contractor.

E. The Owner must have access to the pump stations at all times during construction, including regularly scheduled operation activities and chemical deliveries.

F. The Contractor shall have all materials and equipment on-site when connecting with, cutting into, or reconstructing existing pipes and/or structures.

G. The Contractor shall provide, maintain and operate all temporary facilities.

H. Contractor shall not have unaccompanied access to Town facilities/assets unless approved by the Owner. Contractor shall coordinate access to Town facilities as least 24 hours in advance with the Owner.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01170

SECTION 01200

PROJECT MEETINGS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 PRE-BID CONFERENCE

A. Prior to the opening of the bids, a site conference shall be held with prospective bidders. All Contractors are urged to attend. All Contractors who have requested bid documents shall be furnished with the date, time and place of the meeting, refer to Invitation to Bid.

1.3 PRECONSTRUCTION CONFERENCE

A. A preconstruction conference will be held between the Contractor, the Owner, and applicable agency representatives to review the Contractor's proposed methods of complying with the requirements of the Contract Documents.

B. Contractor will be notified of the time, date, and place where the preconstruction conference will be held.

1.4 PROGRESS MEETINGS WITH OWNER

A. In addition to other regular project meetings for other purposes (as indicated elsewhere in the Contract Documents), hold general progress teleconference meetings every week and hold on-site progress meetings every month with times and place coordinated between Contractor and Owner. The Contractor shall provide the teleconference calling platform and phone system for the field office. The on-site progress meetings shall have the option for the Owner to call in via teleconference. Meeting dates shall be established by the Owner. Require every entity then involved in the planning, coordination or performance of work to be properly represented at each meeting. Include (when applicable) consultants, separate contractors (if any), principal subcontractors, suppliers/ manufacturers/fabricators, governing authorities, insurers, special supervisory personnel and others with an interest or expertise in the progress of the work. Review each entity's present and future needs including interface requirements, time, sequence, deliveries, access, site utilization, temporary facilities and services, hours of work, hazards and risks, housekeeping, submittals, change orders, and documentation of information for payment requests. Discuss whether each element of current work is ahead of schedule. Determine how behind-time work will be expedited and secure commitments from the entities involved in doing so. Discuss

whether schedule revisions are required to ensure that current work and subsequent work will be completed within the Contract Time. Review everything of significance which could affect the progress of the work.

B. Within seven days after each progress meeting date, the Owner will forward copies of the minutes-of-the-meeting, to the Contractor.

C. Immediately following each on-site progress where revisions to the Progress Schedule/Critical Path Schedule have been made or recognized (regardless of whether agreed to by each entity represented), revise the Schedule. Reissue revised Schedule within 10 days after meeting. At intervals matching the preparation of payment requests, revise and reissue the Schedule to show actual progress of the work in relation to the latest revision of the Schedule.

PART 2 - PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01200

SECTION 01300

SUBMITTALS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 SUMMARY

A. This section specifies the general methods and requirements of submissions applicable to the following work-related submittals.

1. Shop Drawings.
2. Product Data.
3. Samples.
4. Mock Ups.
5. Operation and Maintenance Manuals.
6. Construction Photographs.
7. Construction or Submittal Schedules.
8. Or Equal submittals.
9. As-Built Surveys.

B. Additional general submission requirements are contained in the General Conditions.

C. Detailed submittal requirements will be specified in the technical specifications section.

1.3 SHOP DRAWINGS, PRODUCT DATA, SAMPLES

A. Shop Drawings:

1. Shop drawings, as defined in the General Conditions, and as specified in individual work sections include, but are not necessarily limited to: custom-prepared data such as fabrication and erection/installation (working) drawings of concrete reinforcement, structural details and piping layout, scheduled information, setting diagrams, actual shopwork manufacturing instructions,

custom templates, special wiring diagrams, coordination drawings, interference drawings, individual system or equipment inspection and test reports including performance curves and certifications as applicable to the work.

2. All shop and working drawings shall be prepared on standard size, 22-in. by 34-in. sheets, except those which are made by changing existing standard shop or working drawings.

3. All shop drawings shall be submitted using a transmittal form approved by the Owner. Submittal form shall include identification of transmittal number and specification section number.

4. All shop drawings submitted by subcontractors for review shall be sent directly to the Contractor for approval. The Contractor shall be responsible for their submission to the Owner at the proper time so as to prevent delays in delivery of materials.

5. The Contractor shall check all subcontractor's shop drawings regarding measurements, size of members, materials, and details to satisfy himself that they conform to the intent of the Drawings and Specifications. Shop drawings found to be inaccurate or otherwise in error shall be returned to the subcontractors for correction before submission thereof to the Owner.

6. All details on shop drawings submitted for approval shall show clearly the relation of the various parts of the main members and lines of the structure, and where correct fabrication of the work depends upon field measurements, such measurements shall be made and noted on the drawings before being submitted for approval.

B. Product Data:

1. Product data as specified in individual sections, include, but are not necessarily limited to, standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturer's product specification and printed installation instructions, availability of colors and patterns, manufacturer's printed statements of compliances including certificates of compliance and applicability, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications and recommended spare-parts listing, and printed product warranties, as applicable to the Work.

C. Samples:

1. Samples specified in individual sections, include, but are not necessarily limited to, physical examples of the work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets,

specimens for coordination of visual effect, graphic symbols, and units of work to be used by the Owner for independent inspection and testing, as applicable to the Work.

1.4 CONTRACTOR'S RESPONSIBILITIES

A. The Contractor shall review shop drawings, product data and samples, including those by subcontractors, prior to submission to determine and verify the following:

1. Field measurements.

2. Field construction criteria.

3. Catalog numbers and similar data.

4. Conformance with the Specifications.

B. Each shop drawing, sample, and product data submitted by the Contractor shall have affixed to it the following Certification Statement including the Contractor's Company name and signed by the Contractor: "Certification Statement: by this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data, and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements." Shop drawings and product data sheets 11-in. x 17-in. and smaller shall be bound together in an orderly fashion and bear the above Certification Statement on the cover sheet. The cover sheet shall fully describe the packaged data and include a listing of all items within the package. Provide to the Owner a copy of each submittal transmittal form for shop drawings, product data and samples at the time of submittal of said drawings, product data and samples to the Owner.

1. Submittals received without a Certification Statement shall not be reviewed.

C. If a shop drawing shows any deviation from the requirements of the Contract Documents, the Contractor shall make specific mention of the deviations in the Transmittal Form furnished by the Owner and provide a description of the deviations in a letter attached to the submittal.

D. The review and approval of shop drawings, samples or product data by the Owner shall not relieve the Contractor from his responsibility with regard to the fulfillment of the terms of the Contract. All risks of error and omission are assumed by the Contractor and the Owner will not have responsibility therefore.

E. No portion of the work requiring a shop drawing, sample, or product data shall be started nor shall any materials be fabricated or installed prior to the approval or qualified approval of such item. Fabrication performed, materials purchased or on-site construction accomplished which does not conform to approved shop drawings and data shall be at the Contractor's risk. The Owner will not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.

F. Project work, materials, fabrication, and installation shall conform with approved shop drawings, applicable samples, and product data.

1. Manufacturer's printed installation instructions; a part of product data submitted to the Owner will not be reviewed and are for informational purposes only.

1.5 "OR EQUAL"

A. Should the Contractor seek approval of a product other than the brand or brands named in these specifications, it shall furnish written evidence that such product conforms in all respects to the specified requirements, and that it has been used successfully elsewhere under similar conditions. Where the specified requirements involve conformance to recognized codes or standards the Contractor shall furnish evidence of such conformance in the form of test or inspection reports, prepared by a recognized agency, and baring an authorized signature.

B. Manufacturers' standard data and catalog cut sheets will not be considered sufficient in themselves, and the Owner will not be responsible for seeking further data from the manufacturer, or for otherwise researching the product. Failure to provide complete data will be cause for rejection of the product.

C. The Contractor shall be responsible for all additional costs including license fees, structural/foundation, piping, instrumentation, and electrical work necessary to accommodate the proposed "or equal" equipment. Items which result in a cost reduction shall be presented and a change order reflecting 65% of the cost savings will be prepared and the contract price modified.

1.6 SUBMISSION REQUIREMENTS

A. Make submittals promptly in accordance with approved schedule, and in such sequence as to cause no delay in the Work or in the work of any other contractor.

B. All complete submittals shall be submitted sufficiently in advance of construction requirements to provide no less than fifteen (15) days, excluding Saturdays, Sundays and legal holidays for review from the time received at the Owner's reviewing office. For submittals of major equipment, that require more than fifteen (15) days to review, due to its sheer complexity and amount of detail and also requiring review by more than one engineering discipline, a letter will be sent by the Owner or his/her designee to the Contractor informing him/her of the circumstances and the date it is expected the submittal will be returned to the Contractor.

C. Number of submittals required:

1. Shop Drawings: Unless otherwise stated in the respective Specifications Sections, submit a searchable and indexed PDF (on CD or via electronic file transfer service).

2. Product Data: Unless otherwise stated in the respective Specifications submit a searchable and indexed PDF (on CD or via electronic file transfer service).

3. Samples: Submit the number stated in the respective Specification Sections.

D. Submittals shall contain:

1. The date of submission and the dates of any previous submissions.

2. The Project title and number.

3. Contractor identification.

4. The names of:

i. Contractor

ii. Supplier

iii. Manufacturer

5. Identification of the product, with the specification section number, page and paragraph(s).

6. Field dimensions, clearly identified as such.

7. Relation to adjacent or critical features of the Work or materials.

8. Applicable standards, such as ASTM, MassDOT, or Federal Specification numbers.

9. Identification of deviations from Contract Documents.

10. Identification of revisions on resubmittals.

11. An 8-in. x 3-in. blank space for Contractor and Owner stamps.

E. Each shipment of drawings shall be accompanied by a transmittal form furnished by the Owner giving a list of the drawing numbers and the names mentioned above.

1.7 REVIEW OF SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

A. The Owner's review is for general conformance with the design concept and contract drawings. Markings or comments shall not be construed as relieving the Contractor from compliance with the contract plans and specifications or from departures there from. The Contractor remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.

B. The review of shop drawings, data, and samples will be general. They shall not be construed:

1. as permitting any departure from the Contract requirements;

2. as relieving the Contractor of responsibility for any errors, including details, dimensions, and materials;

3. as approving departures from details furnished by the Owner, except as otherwise provided herein.

C. If the shop drawings, data or samples as submitted describe variations and show a departure from the Contract requirements which the Owner finds to be in the interest of the Owner and to be so minor as not to involve a change in Contract Price or time for performance, the Owner may return the reviewed drawings without noting an exception.

D. A digital copy of shop drawings or product data will be returned to the Contractor. Samples will not be returned.

E. Submittals will be returned to the Contractor under one of the following codes.

Code 1 “NO EXCEPTION TAKEN” is assigned when there are no notations or comments on the submittal. When returned under this code the Contractor may release the equipment and/or material for manufacture.

Code 2 “MAKE CORRECTIONS AS NOTED” is assigned when a confirmation of the notations and comments IS NOT required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product.

Code 3 “SUBMIT SPECIFIED ITEM” is assigned when a confirmation of the notations and comments IS required by the Contractor. This confirmation shall specifically address each omission and nonconforming item that was noted. Confirmation is to be received by the Owner within 10 calendar days of the date of the Owner’s transmittal requiring the confirmation.

Code 4 “REVISE AND RESUBMIT” is assigned when notations and comments are extensive enough to require a resubmittal of the package. This resubmittal is to address all comments, omissions and non-conforming items that were noted. Resubmittal is to be received by the Owner within 10 calendar days of the date of the Owner’s transmittal requiring the resubmittal.

Code 5 “REJECTED” is assigned when the submittal does not meet the intent of the Contract Documents. The Contractor must resubmit the entire package revised to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor to meet the Contract Documents.

F. Resubmittals will be handled in the same manner as first submittals. On resubmittals the Contractor shall direct specific attention, in writing, on the letter of transmittal and on resubmitted shop drawings by use of revision triangles or other

similar methods, to revisions other than the corrections requested by the Owner, on previous submissions. Any such revisions which are not clearly identified shall be made at the risk of the Contractor. The Contractor shall make corrections to any work done because of this type revision that is not in accordance to the Contract Documents as may be required by the Owner.

G. Partial submittals may not be reviewed. The Owner will be the only judge as to the completeness of a submittal. Submittals not complete will be returned to the Contractor, and will be considered "Rejected" until resubmitted. The Owner may at his option provide a list or mark the submittal directing the Contractor to the areas that are incomplete.

H. If the Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, the Contractor shall give written notice thereof to the Owner at least seven working days prior to release for manufacture.

I. When the shop drawings have been completed to the satisfaction of the Owner, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Owner.

1.8 GENERAL PROCEDURES FOR SUBMITTALS

A. Coordination of Submittal Times: Prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work sections, of the Specifications, so that the installation will not be delayed by processing times including disapproval resubmittal (if required), coordination with other submittals, inspection, testing (off-site and on- site), purchasing, fabrication, delivery and similar sequenced activities. No extension of time will be authorized because of the Contractor's failure to transmit submittals sufficiently in advance of the Work.

1.9 CERTIFICATION FORMS

A. If specifically specified in other sections and appendices of these Specifications, the Contractor shall submit the applicable certification form(s) for each item required, and if applicable, the form attached to this section, completely filled in and stamped.

1.10 CERTIFICATES OF COMPLIANCE

A. Certificates of Compliance specified in the specifications shall include and mean certificates, manufacturer's certificates, certifications, compliance reporting forms, certified copies, letters of certification and certificate of materials.

B. The Contractor shall be responsible for providing Certificates of Compliance requested and specified in the Technical Specifications. Certificates are required for demonstrating proof of compliance with specification requirements and shall be executed in 6 hard copies as well as a searchable and indexed PDF (on CD or via

electronic file transfer service) unless otherwise specified/approved. Each certificate shall be signed by an official authorized to certify on behalf of the Contractor, Sub-contractor, or manufacturing company (as appropriate), and shall contain the individual's name and title, address of the Supplier, the project name and location, and if applicable, the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor, Sub-contractor, or Supplier from providing additional means of verification or from furnishing satisfactory material, if after tests are performed on selected samples, the material is found not to meet the specific requirements.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

CERTIFICATE OF UNIT RESPONSIBILITY

For Specification Section _____

_____
(Section title)

In accordance with the requirements of the contract documents, the undersigned manufacturer accepts unit responsibility for all components of equipment furnished under specification Section _____ and the requirements specified in Section _____. We hereby certify that these components are compatible and comprise a functional unit suitable for the specified and indicated performance and design requirements.

_____ _____
Notary Public Name of Corporation

_____ _____
Commission Expiration Date Address

Seal: By: _____
Duly Authorized Official

_____
Legal Title of Official

Date: _____

END OF SECTION 01300

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SECTION 01311

CONSTRUCTION PROGRESS SCHEDULES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 SUMMARY

A. Prepare and submit to Owner for review projected construction schedules. Update and revise schedules periodically to reflect progress of work.

B. Prepare and electronically submit to Owner for review weekly look ahead schedule.

1.3 FORM OF SCHEDULES

A. Prepare in form of network analysis system using the Critical Path Method.

B. Perform data preparation, analysis, charting and updating in accordance with pertinent recommendations contained in current edition of "CPM in Construction" manual of the Associated General Contractors.

C. The network analysis system shall consist of a detailed network, mathematical analysis and a network diagram.

1. The network diagram shall show the order and interdependence of activities and the sequence in which the work is to be accomplished as planned by the Contractor. The basic concept of a network analysis diagram will be followed to show how the start of a given activity is dependent on the completion of preceding activities and its completion restricts the start of following activities.

2. Detailed network activities shown on the network diagram shall include, in addition to construction activities, the submittal for approval of samples and shop drawings, the procurement of critical materials and equipment and their installation and testing.

3. Related activities shall be grouped on the network. The activities on the critical paths shall be highlighted. The network shall be time scaled using units of approximately one-half inch equals one week or other suitable scale approved by the Owner. Weekends and holidays shall be indicated. Where slack exists, the activities shall be shown at the earliest time they are scheduled to be accomplished. Sheet size shall be 30" x 60" minimum.

4. The mathematical analysis of the network diagram shall include a tabulation of each activity shown on the detailed network diagram. The following information shall be furnished as a minimum for each activity.

    i. Preceding and following event numbers.
    ii. Activity description.
    iii. Estimated duration of activities in units of working days (being the best estimate available at time of computation).
    iv. Earliest start date (by calendar date).
    v. Earliest finish date (by calendar date).
    vi. Scheduled or actual start date (by calendar date).
    vii. Scheduled or actual finish date (by calendar date).
    viii. Latest start date (by calendar date).
    ix. Latest finish date (by calendar date).
    x. Slack or Float.
    xi. Monetary value of activity.
    xii. Responsibility for activity (Prime Contractor, subcontractors, suppliers).
    xiii. Manpower required by trade and by total. Graphic representatives will be allowed.
    xiv. Equipment required.

5. The mathematical analysis shall list the activities in sorts or groups as follows:

    i. By the preceding event number from lowest to highest and then in the order of the following event number.
    ii. By the amount of slack, then in order of activity number.
    iii. By responsibility in order of earliest start date.

1.4 REVIEW OF SYSTEM

A. Participate in a review and evaluation of the proposed network diagrams and analysis by the Owner. Revisions necessary as a result of this review shall be resubmitted to the Owner within 10 days after the conference. Twenty days will be allowed for checking and further action by the Owner. Progress payments will be withheld pending attainment of a mutually acceptable schedule. The mutually acceptable schedule shall then be the schedule to be used by the Contractor for planning, organizing, directing and executing the Work and for reporting progress. If the Contractor thereafter desires to make changes in his method of operating and scheduling he shall notify the Owner in writing stating the reasons for the change. If the Owner considers these changes to be of a major nature he may require the Contractor to revise and submit, without additional cost to the Owner, all of the affected portion of the network diagram and mathematical analysis to show the effect on the entire project. A change may be considered of a major nature if the time estimated to be required or actually used for an activity or the logic of sequence of activities is varied from the original plan to a degree that there is reasonable doubt as to the effect on the Contract completion date or dates. Changes which affect activities with adequate slack time shall be considered as minor changes, except that an accumulation of minor changes may be considered as a major change

when their cumulative effect might affect the Contract completion date.

1.5 UPDATES

A. Submit at intervals of 30 days a report of the actual construction progress by updating the mathematical analysis. All contract changes, including pending and approved change orders and field orders shall be included in the update schedule. Revisions causing changes in the detailed network shall be noted on the network or a revised issue of the affected portions of the detailed network furnished. The network shall be revised as necessary for the sake of clarity.

B. The report shall show the activities or portions of activities completed during the reporting period and their total value as basis for the Contractor's periodic request for payment. Coordinate with the schedule of breakdown of lump sum items. The report shall state the percentage of the Work actually completed and schedule as of the report date and the progress along the critical path in terms of days ahead or behind the allowable dates. If the project is behind schedule, progress along other paths with negative slack shall be reported. Percentage of work actually completed will be reviewed by the Owner. If the Contractor fails to submit the required monthly reports and updates within the time prescribed, the Owner may withhold approval of progress payment estimates until such time as the Contractor submits the required reports and updates. Three copies of the report shall be submitted for each update.

C. Simultaneously submit a narrative report with the updated analysis which shall include but not be limited to a description of the problem areas, current and anticipated delaying factors, their impact, and an explanation of corrective actions taken or proposed.

1.6 SUBMITTALS

A. Within 15 days after execution of the AGREEMENT, submit 3 copies of a preliminary schedule indicating planned operations during first 60 days. Include cost of activities expected to be completed before submission and approval of the complete schedule.

B. Within 30 days after execution of the AGREEMENT, submit 3 copies of the complete network analysis system. After review, submit 3 copies of the mutually acceptable system.

C. Submit 3 copies of monthly reports and updates by the tenth day of the month.

D. Submit an electronic copy of weekly look ahead schedule to the Owner by 9:00 am every Friday.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01311

SECTION 01350

HEALTH AND SAFETY PLAN

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 SUMMARY

A. The Contractor shall, prior to the start of work on the site, prepare and submit for review, a site-specific health and safety plan. Work may not proceed at the project site until the Owner has reviewed and approved the Contractor's health and safety plan. Any delays incurred by the Contractor relating to reviews of the health and safety plan shall be the responsibility of the Contractor and constitute no additional costs or claims to the Owner. The Contractor is responsible for all safety precautions and maintaining a safe work site.

B. Individuals involved in the work shall be properly informed and trained in the recognition, response, and handling of hazardous materials. Contractor shall be aware of site-specific work conditions including hazards posed by chemical stored on site, including but not limited to, sodium fluoride, granular activated carbon, potassium hydroxide, and sodium hypochlorite. The Contractor shall provide appropriate equipment (e.g., gloves, face shields, blowers, etc.) in working around hazards present.

C. The excavation of contaminated soils areas is not anticipated. However, the Contractor shall provide appropriate equipment (e.g., temporary fencing, drums) in the event hazardous materials are spilled or encountered.

D. Individuals involved in the excavation of potentially impacted soils shall be properly informed and trained in the recognition and response strategies involved with the hazards posed by these contaminants.

E. The Contractor shall be cognizant of the minimum standards set forth in OSHA 29 CFR 1910.120. The health and safety plan shall include, but not be limited to the following:

1. Identification of Contractor's Site Safety Officer.

2. Identification of Contractor's Designated Field Personnel.

3. Type of Medical Surveillance Program.

4. Identification of Hazard and Risks Associated with Project.

5. Contractor's Standard Operating Procedures including Personnel Training and Field Orientation; Personal Hygiene Requirements & Guidelines; Field Monitoring Requirements of Site Contaminants; Respiratory Protection Training & Requirements; Levels of Protection and Selection of Equipment Procedures; Zone Delineation of the Project Site; Site Security and Entry Control Procedures; Contingency and Emergency Procedures; and Listing of Emergency Contacts.

6. Contractor's air monitoring plan (if required) immediately adjacent to the work area, and at the fence line.

7. Contractor's dust suppression plan. If air monitoring indicates a higher level of protection than modified Level D, work will stop at no cost to Owner until proper engineering controls/dust suppression sufficiently address the elevated air monitoring results. Modified Level D protection for all onsite personnel is the minimum project requirement.

8. The Contractor must be aware of site-specific requirements such as site security during non-working hours, limited work space, and minimizing the effects of demolition to adjacent structures.

9. The Contractor shall make available complete sets of personal protective equipment and clothing to the Owner for use during site inspections by the Owner. These shall be supplied and maintained at no cost to the Owner, and shall be returned to the Contractor upon completion of the Work, except for expendable disposal protective clothing. Contractor shall provide a repository for collection of disposable health and safety materials. Collection and disposal of contaminated expendable supplies shall be at cost to the Contractor.

F. The Contractor shall comply with all federal, state, and local regulations in regards to demolition/transportation/disposal of asbestos containing materials, lead paint, and other hazardous materials.

1. At least 10 working days prior to initiating work, the Contractor is required to submit to MassDEP an Asbestos Removal Notification (Form AQ04 (ANF-001)) for any asbestos abatement, removal, or disposal and a Construction/Demolition Notification (Form BWP AQ 06) for demolition work.

2. If any asbestos-containing materials will be abated through non-traditional abatement methods, the Contractor must apply for and obtain approval from MassDEP, through Application BWP AQ36 – Application for Non-Traditional Asbestos Abatement Work Practice Approval.

3. MassDEP Asbestos, Construction and Demolition Notifications can be found at: https://www.mass.gov/guides/massdep-asbestos-construction-demolition-

notifications

1.3 SUBMITTALS

A. Shop Drawings: Submit the following in accordance with Section 01300 - Submittals:

1. Health and Safety Plan – Prior to the start of work on the site, prepare and submit for review, a site-specific health and safety plan. Work may not proceed at the project site until the Owner has reviewed and approved the Contractor's health and safety plan.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01350

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SECTION 01370

SCHEDULE OF VALUES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 SUMMARY OF WORK

A. This section includes the following:

1. Provide schedule of values covering each lump sum bid item.

1.3 SUBMITTALS

A. Shop Drawings: Submit the following in accordance with Section 01300 - Submittals:

1. Schedule of values.

i. Revise and resubmit schedule until acceptable to the Owner.

2. Itemize separate line item cost for work involving each lump sum item, including each filed sub-bid.

i. Ensure that the sum of the items listed in the schedule of values for each lump sum item equals the bid price for the respective lump sum item.
ii. Items such as Bond premium and temporary construction facilities may be listed separately in the schedule, provided amounts can be substantiated.

3. Breakdown installed costs into:

i. Delivered cost of product, material, equipment.
ii. Total installed cost with overhead and profit.
(a) Do not list overhead and profit as separate items.
(b) An unbalanced schedule of values providing for overpayment on items of work performed first will not be accepted.

1.4 SEQUENCING AND SCHEDULING

A. Prepare schedule of values covering each lump sum item after review of tentative schedule at pre-construction conference, but before submission of first application for payment.

B. Before submitting any application for payment, obtain the Owner's approval of the Schedule of Values.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01370

SECTION 01400

QUALITY ASSURANCE

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 SUMMARY

A. This section covers Quality Assurance and Control requirements for this contract.

B. The Contractor is responsible for controlling the quality of work, including work of its subcontractors, and suppliers and for assuring the quality specified in the Technical Specifications is achieved.

1.3 QUALITY ASSURANCE

A. The contractor and sub-contractor shall:

1. Examine the Contract Drawings for demolition, removal requirements and proposed work as shown on the Contract Documents.

2. Verify all existing conditions and dimensions before commencing work.

3. Visit the site and examine the existing conditions as they find them and shall inform themselves of the character, extent and type of demolition and removal work to be performed.

4. Submit any questions regarding the extent and character of the demolition and removal work in the manner and within the time period established for receipt of such questions during the bidding period.

B. Copies of applicable referenced standards are not included in the Contract Documents. Where copies of standards are needed by the Contractor for superintendence and quality control of the work, the Contractor shall obtain a copy or copies directly from the publication source and maintain at the jobsite, available to the Contractor's personnel, subcontractors, and Owner.

C. Quality of Materials: Unless otherwise specified, all materials and equipment furnished for permanent installation in the Work shall conform to applicable standards and specifications and shall be new, unused, and free from defects and imperfections, when installed or otherwise incorporated in the Work. Material and equipment shall not be used by the Contractor for any purpose other than that intended or specified unless such use is authorized by the Owner.

D. Where so specified, products or workmanship shall also conform to the additional performance requirements included within the Contract Documents to establish a higher or more stringent standard or quality than that required by the referenced standard.

1.4 OFFSITE INSPECTION

A. When the specifications require inspection of materials or equipment during the production, manufacturing, or fabricating process, or before shipment, such services shall be performed by an independent testing laboratory, or inspection organization acceptable to Owner in conjunction with or by the Owner .

B. The Contractor shall give appropriate written notice to the Owner not less than 30 days before offsite inspection services are required, and shall provide for the producer, manufacturer, or fabricator to furnish safe access and proper facilities and to cooperate with inspecting personnel in the performance of their duties.

C. The inspection organization shall submit a written report to the Contractor who shall provide copies to the Owner.

1.5 MATERIALS AND EQUIPMENT

A. The Contractor shall maintain control over procurement sources to ensure that materials and equipment conform to specified requirements in the Contract Documents.

B. The Contractor shall comply with manufacturer's printed instructions regarding all facets of materials and/or equipment movement, storage, installation, testing, startup, and operation. Should circumstances occur where the Contract Documents are more stringent than the manufacturer's printed instructions, the Contractor shall comply with the specifications. In cases where the manufacturer's printed instructions are more stringent than the Contract Documents, the Contractor shall advise the Owner of the disparity and conform to the manufacturer's printed instructions. In either case, the Contractor is to apply the more stringent specification or recommendation, unless approved otherwise by the Owner.

1.6 CERTIFICATION FORMS AND CERTIFICATES

A. The Contractor shall be responsible for submitting the certification forms and certificates in conformance with the requirements specified in Section 01300 - Submittals.

PART 2 - PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 QUALITY CONTROL

A. Quality control is the responsibility of the Contractor, and the Contractor shall maintain control over construction and installation processes to assure compliance with specified requirements.

B. Certifications for personnel, procedures, and equipment associated with special processes (e.g., welding, cable splicing, instrument calibration, surveying) shall be maintained by the Contractor, available for inspection by the Owner. Copies will be made available to the Owner upon request.

C. Means and methods of construction and installation processes are the responsibility of the Contractor, and at no time is it the intent of the Owner to supersede or void that responsibility.

3.2 CONTRACT CLOSEOUT

A. Provide in accordance with Section 01700 – Contract Closeout

END OF SECTION 01400

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SECTION 01600

CONTROL OF MATERIALS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 APPROVAL OF MATERIALS

A. Unless otherwise specified, only new materials and equipment shall be incorporated in the work. All materials and equipment furnished by the Contractor shall be subject to the inspection and approval of the Owner. No material shall be delivered to the work without prior approval of the Owner.

B. As specified in Section 01300, the Contractor shall submit to the Owner, data relating to materials and equipment he proposes to furnish for the work. Such data shall be in sufficient detail to enable the Owner to identify the particular product and to form an opinion as to its conformity to the specifications.

C. Facilities and labor for handling and inspection of all materials and equipment shall be furnished by the Contractor. If the Owner requires, either prior to beginning or during the progress of the work, the Contractor shall submit additional samples or materials for such special tests as may be necessary to demonstrate that they conform to the specifications. Such samples shall be furnished, stored, packed, and shipped as directed at the Contractor's expense. Except as otherwise noted, the Owner will make arrangements for and pay for the tests.

D. Any delay of approval resulting from the Contractor's failure to submit samples or data promptly shall not be used as a basis of a claim against the Owner.

E. In order to demonstrate the proficiency of workmen or to facilitate the choice among several textures, types, finishes, and surfaces, the Contractor shall provide such samples of workmanship or finish as may be required.

F. The materials and equipment used on the work shall correspond to the approved samples or other data.

1.3 BOLTS, ANCHOR BOLTS AND NUTS

A. All necessary bolts, anchor bolts, nuts, washers, plates and bolt sleeves shall be furnished by the Contractor in accordance herewith. Anchor bolts shall have suitable washers and, where so required, their nuts shall be hexagonal.

B. All anchor bolts, nuts, washers, plates, and bolt sleeves shall be galvanized unless otherwise indicated or specified.

C. Expansion bolts shall have malleable iron and lead composition elements of the required number of units and size.

D. Unless otherwise specified, stud, tap, and machine bolts, and nuts shall conform to the requirements of ASTM Standard Specification for Carbon Steel Externally and Internally Threaded Standard Fasteners, Designation A307. Hexagonal nuts of the same quality of metal as the bolts shall be used. All threads shall be clean cut and shall conform to AN Standard B1.1 for Unified Inch Screw Threads (UN and UNR Thread Form).

E. Bolts, anchor bolts, nuts, and washers, specified to be galvanized, shall be zinc coated, after being threaded, by the hot-dip process in conformity with the ASTM Standard Specification for Zinc (Hot-Galvanized) Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars, and Strip, Designation A123, or the ASTM Standard Specifications for Zinc Coating (Hot Dip) on Iron and Steel Hardware, Designation A153, as is appropriate.

F. Bolts, anchor bolts, nuts, and washers specified to be stainless steel shall be Type 316 stainless steel. All anchor bolts, nuts, washers, plates and bolt sleeves to be submerged in a liquid shall also be Type 316 stainless steel.

G. Anchor bolts and expansion bolts shall be set accurately. If anchor bolts are set before the concrete has been placed, they shall be carefully held in suitable templates of acceptable design. Where indicated on the Drawings, specified, or required, anchor bolts shall be provided with square plates at least 4 in. by 4 in. by 3/8 in. or shall have square heads and washers and be set in the concrete forms with suitable pipe sleeves, or both. If anchor or expansion bolts are set after the concrete has been placed, all necessary drilling and grouting or caulking shall be done by the Contractor and care shall be taken not to damage the structure or finish by cracking, chipping, spalling, or otherwise during the drilling and caulking.

1.4 GREASE FITTINGS

A. Provide extension fittings and tubing on all grease fittings that are installed in an inaccessible location. The extension is to be located so that equipment can be lubricated from the operating level without the use of ladders, staging or shutting down the equipment. Tubing: 316 stainless steel.

1.5 GREASE, OIL AND FUEL

A. All grease, oil and fuel required for testing of equipment shall be furnished with the respective equipment. The Owner shall be furnished with a year's supply of required lubricants including grease and oil of the type recommended by the manufacturer with each item of equipment supplied under Divisions 11, 13, 15 and 16 unless stated otherwise in these specifications.

1.6 CLEANING AND REPLACEMENT OF GLASS

A. All glass shall be thoroughly cleaned and polished by qualified window cleaners just prior to acceptance of the work at the expense of the Contractor.

B. All broken glass not required to be replaced under Division 8 shall be replaced by the Contractor at no additional expense to the Owner.

1.7 ARCHITECTURAL COATINGS

A. Maintain coordination among all sections (windows, window walls, louvers, doors and frames, etc.) requiring special coatings. All coatings shall match to the satisfaction of the Owner with regard to color and texture. Items rejected by the Owner shall promptly be removed from the job site.

1.8 REJECTED MATERIALS AND DEFECTIVE WORK

A. Materials furnished by the Contractor and condemned by the Owner as unsuitable or not in conformity with the specifications shall forthwith be removed from the work by the Contractor, and shall not be made use of elsewhere in the work. Any errors, defects or omissions in the execution of the work or in the materials furnished by the Contractor, even though they may have been passed or overlooked or have appeared after the completion of the work, discovered at any time before the final payment is made hereunder, shall be forthwith rectified and made good by and at the expense of the Contractor and in a manner satisfactory to the Owner. The Contractor shall reimburse the Owner for any expenses, losses or damages incurred in consequence of any defect, error, omission or act of the Contractor or his employees, as determined by the Owner, occurring previous to the final payment.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01600

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SECTION 01610

DELIVERY, STORAGE, AND HANDLING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 SUMMARY OF WORK

A. This section specifies the general requirements for the delivery, handling, storage and protection for all items required in the construction of the work. Specific requirements, if any, are specified with the related item.

1.3 TRANSPORTATION AND DELIVERY

A. Transport and handle items in accordance with manufacturer's printed instructions.

B. Schedule delivery to reduce long term on-site storage prior to installation and/or operation. Provide on-site storage plan. Under no circumstances shall equipment be delivered to the site more than one week prior to installation without written authorization from the Owner.

C. Coordinate delivery with installation to ensure minimum holding time for items that are hazardous, flammable, easily damaged or sensitive to deterioration.

D. Deliver products to the site in manufacturer's original sealed containers or other packing systems, complete with instructions for handling, storing, unpacking, protecting and installing.

E. All items delivered to the site shall be unloaded and placed in a manner which will not hamper the Contractor's normal construction operation or those of subcontractors and other contractors and will not interfere with the flow of necessary traffic.

F. Provide equipment and personnel to unload all items delivered to the site.

G. Promptly inspect shipment to assure that products comply with requirements, quantities are correct, and items are undamaged. For items furnished by others (i.e. Owner, other Contractors), perform inspection in the presence of the Owner. Notify Owner verbally, and in writing, of any problems.

1.4 STORAGE AND PROTECTION

A. Store and protect products in accordance with the manufacturer's printed

instructions, with seals and labels intact and legible. Storage instruction shall be studied by the Contractor and reviewed with the Owner by him. Instructions shall be carefully followed and a written record of this kept by the Contractor. Arrange storage to permit access for inspection.

B. Store loose granular materials on solid flat surface in a well-drained area. Prevent mixing with foreign matter.

C. Cement and lime shall be stored under a roof and off the ground and shall be kept completely dry at all times. All structural, miscellaneous and reinforcing steel shall be stored off the ground or otherwise to prevent accumulation of dirt or grease, and in a position to prevent accumulations of standing water and to minimize rusting. Beams shall be stored with the webs vertical. Precast concrete shall be handled and stored in a manner to prevent accumulations of dirt, standing water, staining, chipping or cracking. Brick, block and similar masonry products shall be handled and stored in manner to reduce breakage, cracking and spalling to a minimum.

D. All mechanical and electrical equipment and instruments subject to corrosive damage by the atmosphere (even though covered by canvas) shall be stored in a weathertight building to prevent injury. The building may be a temporary structure on the site or elsewhere, but it must be satisfactory to the Owner. Building shall be provided with ventilation to prevent condensation. Maintain temperature and humidity within range required by manufacturer.

1. All equipment shall be stored fully lubricated with oil, grease and other lubricants unless otherwise instructed by the manufacturer.

2. Moving parts shall be rotated a minimum of once weekly to ensure proper lubrication and to avoid metal-to-metal "welding". Upon installation of the equipment, the Contractor shall start the equipment, at least half load, once weekly for an adequate period of time to ensure that the equipment does not deteriorate from lack of use.

3. Lubricants shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. New lubricants shall be put into the equipment at the time of acceptance.

4. Prior to acceptance of the equipment, the Contractor shall have the manufacturer inspect the equipment and certify that its condition has not been detrimentally affected by the long storage period. Such certifications by the manufacturer shall be deemed to mean that the equipment is judged by the manufacturer to be in a condition equal to that of equipment that has been shipped, installed, tested and accepted in a minimum time period. As such, the manufacturer will guaranty the equipment equally in both instances. If such a certification is not given, the equipment shall be judged to be defective. It shall be removed and replaced at the Contractor's expense.

5. No stainless steel components shall come in contact with carbon steel products,

in order to prevent contamination by rust.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01610

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SECTION 01700

CONTRACT CLOSEOUT

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 SUMMARY OF WORK

A. This section specifies administrative and procedural requirements for project closeout, including but not limited to:

1. Closeout procedures.

2. Final cleaning.

3. Adjusting.

4. Record Documents.

B. Related Sections include the following:

1. Cleaning up requirements are included in Section 01710.

2. Warranties and Bonds are included in Section 01740.

1.3 CLOSEOUT PROCEDURES

A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Owner's inspection.

B. Provide submittals to Owner that are required by governing or other authorities.

C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payment, and sum remaining due.

D. Submit all warranties.

E. Submit written notice that all subcontractors and suppliers have been paid in full.

F. Submit written notice showing the disposition of all insurance filings and claims.

G. Copy of "Statement of Compliance" filed with the Division of Labor and

Workforce Development, as required under the State Wage Rate Provisions.

1.4 RECORD DOCUMENTS

A. Maintain on site, one set of the following documents; actual revisions to the Work shall be recorded in these documents:

1. Contract Drawings

2. Specifications

3. Addenda

4. Change orders and other Modifications to the Contract

5. Reviewed shop drawings, product data, and samples.

6. Written interpretations and clarifications.

7. Field orders.

8. Field test reports properly verified.

B. Store As-built Documents separate from documents used for construction.

C. Record information concurrent with construction progress.

D. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:

1. Manufacturer's name, address, telephone number, and website and product model and serial number.

2. Product substitutions or alternates utilized.

3. Changes made by Addenda and Modifications.

E. Contract Drawings and Shop Drawings: Legibly mark each item to record actual construction including:

1. Measured horizontal and vertical location of excavation limits referenced to permanent surface bounds.

2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.

3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.

4. Field changes of dimension of detail.

5. Details not on original Contract Drawings.

1.5 FINAL CLEANING

A. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.

1. Remove labels that are not permanent labels.

2. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean.

3. Wipe surface of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition and empty the tight tank. Clean light fixtures and lamps.

4. Clean the site, including landscape development areas, of rubbish, litter and other foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.

1.6 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01700

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SECTION 01710

CLEANING UP

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 SUMMARY

A. During its progress, the work and the adjacent areas affected thereby shall be cleaned up and all rubbish, surplus materials, and unneeded construction equipment shall be removed and all damage repaired so that the public and property owners will be inconvenienced as little as possible.

B. Where material or debris has washed or flowed into or been placed in existing watercourses, ditches, gutters, drains, pipes structures, work done under this contract, or elsewhere during the course of the Contractor's operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the work, and the ditches, channels, drains, pipes, structures, and work, etc., shall, upon completion of the work, be left in a clean and neat condition.

C. On or before the completion of the work, the Contractor shall, unless otherwise especially directed or permitted in writing, tear down and remove all temporary buildings and structures built by him; shall remove all temporary works, tools, and machinery or other construction equipment furnished by him; shall remove, acceptably disinfect, and cover all organic matter and material containing organic matter in, under, and around privies, houses, and other buildings used by him; shall remove all rubbish from any grounds which he has occupied; and shall leave the roads and all parts of the premises and adjacent property affected by his operations in a neat and satisfactory condition.

D. The Contractor shall thoroughly clean all materials and equipment installed by him and his sub-contractors, and on completion of the work shall deliver it undamaged and in fresh and new-appearing condition. All mechanical equipment shall be left fully charged with lubricant and ready for operation.

E. The Contractor shall restore or replace, when and as directed, any public or private property damaged by his work, equipment, or employees, to a condition at least equal to that existing immediately prior to the beginning of operations. To this end the Contractor shall do as required all necessary driveway, walk, and landscaping work. Suitable materials, equipment, and methods shall be used for such restoration. The restoration of existing property or structures shall be done as promptly as practicable as work progresses and shall not be left until the end of the

contract period.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01710

SECTION 01740

WARRANTIES AND BONDS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Technical Specification Sections, apply to this section.

1.2 SUMMARY

A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturers' standard warranties on products and special warranties.

1.3 RELATED WORK

A. Refer to General Conditions of the Contract for the general requirements relating to warranties and bonds.

B. General closeout requirements are included in Section 01700 - Contract Closeout.

C. Specific requirements for warranties for the Work and products and installations that are specified to be under warranty are included in the individual Technical Specification Sections.

D. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.

1.4 SUBMITTALS

A. Submit written warranties to the Owner prior to the date fixed by the Owner for Substantial Completion. If the Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Owner.

B. When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Owner within fifteen days of completion of that designated portion of the Work.

C. When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by

the required parties. Submit a draft to the Owner for approval prior to final execution.

D. Refer to individual Technical Specification Sections for specific content requirements, and particular requirements for submittal of special warranties.

E. At Final Completion, compile two copies of each required warranty and bond properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the “Warranties and Bonds” binder.

F. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-in. by 11-in. paper.

G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the “Warranties and Bonds” binder, with each item identified with the number and title of the specification Section in which specified, and the name of the product or work item.

H. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer, supplier, and manufacturer.

I. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS," the Project title or name, and the name, address, and telephone numbers of the Contractor and equipment supplier.

J. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

K. In addition to providing hard copies, the Contractor shall furnish an electronic version of all documents in indexed and searchable PDF-format (on CD).

1.5 WARRANTY REQUIREMENT

A. Related Damages and Losses: When correcting Work under warranty that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of Work under warranty.

B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding; reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

C. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

D. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights or remedies.

E. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.

F. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

G. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

1.6 DEFINITION

A. Standard Product Warranties are pre-printed written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.

B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION - (NOT USED)

END OF SECTION 01740

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TOWN OF EASTON
BRIDGE NO. E06022, MAIN STREET OVER QUESET BROOK
BRIDGE SCOUR REPAIR

SPECIAL PROVISIONS TO THE
MASSACHUSETTS DEPARTMENT OF TRANSPORTATION – HIGHWAY DIVISION
STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES

DIVISION II

The work on this project shall conform to the 2024 Massachusetts Department of Transportation Highway Division Standard Specifications for Highways and Bridges, the most current version of the MassDOT Supplemental Specifications as of the bid opening date, the October 2017 Massachusetts Department of Transportation Highway Division Construction Standard Details; 1990 Standard Drawings for Signs and Supports; the 1996 Construction and Traffic Standard Details (as relates to the Pavement Markings details only); the 2009 Manual on Uniform Traffic Control Devices (MUTCD) with Revisions 1, 2, and 3 dated July 2022, Massachusetts Amendments and the Standard Municipal Traffic Code; MassDOT's "Work Zone Safety – Temporary Traffic Control "Flipbook"; the 1968 Standard Drawings for Traffic Signals and Highway Lighting; the latest edition of American Standard for Nursery Stock; the Plans and these Special Provisions. The 2024 Standard Specifications; the latest editions of the Supplemental Specifications and the Interim Supplemental Specifications shall be referred to collectively as the Standard Specifications.

The work includes repairing the scour voids that exist along the channel and under the abutments and the stabilization repair of the existing dry laid masonry and voids in each of the abutments. The work involves installation of control of water, streambed excavation, installation of crushed stone wrapped in geotextile, placement and filling of grout bags in the channel, and placing grout beneath the abutments to fill existing voids, the repair of the existing abutment masonry, and performing temporary traffic control during construction. The repair details are presented on the construction drawing sheets that were reviewed and approved by MassDOT on May 2, 2025. Traffic management required to perform the repairs shall be as shown on the construction drawings and the MassDOT Work Zone Safety Temporary Traffic Control Flip Book. Payment for materials or work shown on the Plans as being part of the work to the bridge or which may be incidental to its construction and are not specifically included for payment under the Contract shall be considered incidental to the work performed. Where used within the contract documents, the terms "Department", "Municipality", and "Town" shall collectively be taken to mean the Town of Easton. The term "Engineer" shall be taken to mean the authorized representative or Project Manager for the Town of Easton.

For the work specified under this Contract, the Contractor or Subcontractor(s) shall be prequalified by the Massachusetts Department of Transportation Highway Division (MassDOT) for the following classes of work: Bridge Construction

GENERAL REQUIREMENTS FOR DEMOLITION AND WORK INVOLVING PAINTED STEEL

Demolition and work involving painted steel shall conform to the requirements of Section 961 of the latest MassDOT Standard Specifications and all supplemental specifications as of the date of the bid opening

WORK INVOLVING PAINTED STEEL

Hazardous materials shall be removed in the immediate area of any intended welding, heating, saw cutting or burning of steel. Hazardous material removal is required to allow the demolition of structural steel, railings, drainage systems, utility supports, steel lamp posts, etc.

The Contractor shall assume that the coatings on the steel contain lead (Pb), unless otherwise determined by testing. The Contractor shall certify in writing to the Engineer the results of all testing, and shall also certify that any lead (Pb) coated steel removed from the project was not reused or buried, but was sent to a scrap metal recycling facility.

Implement and maintain programs and procedures, which comply with the requirements of this specification and all applicable standards and regulations. Comply with all applicable regulations even if the regulation is not specifically referenced herein. If a state or local regulation is more restrictive than the regulation of this specification, follow the more restrictive requirements.

This requirement is intended only for the demolition and preparation prior to repair and does not include provisions for recoating of steel.

ENVIRONMENTAL

All applicable portions of Sections 961.65 “Worker Protection” and 961.66 “Environmental Protection and Monitoring” shall be followed when performing this work.

During chemical stripping a hand washing facility may be used in lieu of a decontamination/changing facility.

Hazardous material shall be collected during the disassembly and disposed of as outlined in Section 961.68 “Handling of Hazardous Waste and Reporting Release Programs”.

The applicable submittals shall be according to Section 961.69 “Submittals”.

CLEANING/REMOVAL

CUTTING OR BURNING OF STEEL

All surfaces to be welded, heated, saw cut or burned shall be cleaned so as to remove all contaminants and/or hazardous materials, which could be discharged to the environment as a function of the subsequent operations.

Lead paint shall be removed in its entirety in an area prescribed by a 6 inch (15 cm) minimum offset from the required work. The paint removal operation may be dry abrasive blasting, wet abrasive blasting or chemical stripping.

Proper level of containment shall be used when performing this work in accordance with Section 961.67 "Containment". Full containment is not required during chemical stripping operation however; the Contractor shall install proper shielding and/or tarpaulins under the chemical stripping operations in order to catch all debris generated during this procedure. A cleaned area must be inspected and approved before the demolition operations are started.

During cleaning operations the Contractor shall be required to furnish and erect temporary floodlights illuminating the steel surface at a minimum of 30-foot candles. This lighting shall be used in areas where there is insufficient lighting for proper cleaning operations and inspection. The Contractor shall supply electrical power.

The Contractor shall provide support for interim and final inspection of the bridge during cleaning operations. This support shall include the necessary traffic controls and safe access to the work.

MECHANICAL DISASSEMBLY OF STEEL

All surfaces to be mechanically disassembled by shear cutting or removing bolts or rivets shall not require deleading. When shear cutting or removing bolts or rivets, the Contractor shall not use any method that will cause dust and/or particles to be emitted and/or dispersed into the environment to an extent that would expose the workers above the Action Levels of $30\mu g/m^3$.

For purposes of limiting the lead (Pb) dust, the Contractor will be required to dampen the lead paint work areas.

The Contractor shall install a proper shielding and/or tarpaulins under all lead-paint-coated surfaces to be shear cut or bolts or rivets ordered removed in order to catch any loose lead paint chips, dust or particles.

WORK SCHEDULE

Work on this project is restricted to a maximum 8-hour day (7:30 AM to 3:30 PM), 5-day week, with the Prime Contractor and all Subcontractors working on the same shift, unless given approval by the Engineer. No work shall be done on this Contract on Saturdays, Sundays or Holidays. Work will not be allowed the day before or the day after a long weekend, which involves a Holiday, without prior approval by the Engineer

INCREASED OR DECREASED CONTRACT QUANTITIES
(Eliminating Subsection 4.06)

Subsection 4.06 shall not be applicable to this project.

PLANS AND DETAIL DRAWINGS

(Supplementing Subsection 5.02)

Plans for the existing bridge are not available. Existing conditions shown in plans are depicted from field survey data, visual observations, and MassDOT Inspection Reports. The latest MassDOT inspection report is also available upon request. The Contractor shall perform his/her own investigation of the existing bridge to determine its condition and details necessary for construction and base his/her bid thereon.

PROTECTION OF UTILITIES AND PROPERTY

(Supplementing Subsection 7.13)

The plans may indicate the location of existing known utilities in the vicinity of the work. Bidders are cautioned to verify this information, as its accuracy and completeness are not guaranteed in any manner.

The Contractor is responsible for the protection of vehicular and pedestrian areas on and under the bridge being worked on. The Contractor at no additional compensation (unless otherwise, provided in this Contract) shall take all necessary precautions, including the use of shielding, to protect vehicles and pedestrians from debris.

NOTICE TO OWNERS OF UTILITIES

Written notice shall be given by the Contractor to all public service corporations or officials owning or having charge of publicly or privately owned utilities attached to, or in the vicinity of the culvert, of his/her intention to commence operations and the Contractor shall at that time file a copy of such notice with the Engineer.

Before the Contractor begins any work or operations that may cause damage to any subsurface structures, he/she shall carefully locate all such structures and conduct his operations so as to avoid any damage to them.

A list of public and private utilities can be found on the MassDOT website at:

https://hwy.massdot.state.ma.us/webapps/utilities/select.asp?d=5

Select the Town of Easton, and then locate the utility.

The utility contact list is for guidance only and is not guaranteed to be complete or up to date.

PROTECTION OF UNDERGROUND FACILITIES

The Contractor's attention is directed to the necessity of making his own investigation in order to assure that no damage to existing structures, drainage lines, traffic signal conduits, et cetera, will occur.

The Contractor shall notify Massachusetts DIG SAFE and procure a Dig Safe Number for each location prior to disturbing existing ground in any way. The telephone number of the Dig Safe Call Center is 811 or 1-888-344-7233

ENVIRONMENTAL PERMITTING

The Contractor is advised that a MassDEP WPA Form 5 - Order of Conditions was issued for this project by the Easton Conservation Commission on December 17, 2025 under MassDEP File No. 152-1860. A Self-Verification Notification Form dated December 17, 2025 was submitted to the United States Army Corps of Engineers. If field conditions and/or Contractor-proposed procedures not originally allowed by existing environmental permits require work to occur in or otherwise impact water or wetland resource areas, the Contractor is advised that no associated work can occur until all required environmental permits have been either amended or obtained allowing such work. The Contractor must notify the Town of Easton Town Engineer and Design Engineer in writing at least 60 days prior to desired commencement of the proposed activity. All environmental submittals, including any contact with Local, State, or Federal environmental agencies, must be coordinated with the Town of Easton and the Design Engineer. The Contractor is expected to fully cooperate with requests for information and provide the same in a timely manner. The Contractor is further advised that the Town of Easton will not entertain a delay claim due to the time required to modify or obtain the environmental permits.

PUBLIC SAFETY AND CONVENIENCE
(Supplementing Subsection 7.09)

Particular care shall be taken to establish and maintain such methods and procedures that will not create hazards of an unusual nature. Miscellaneous construction activities needing temporary lane closures for access to the construction shall be done at the approval of the Town of Easton. Travel lane closures shall be allowed based solely on the discretion of the Town of Easton.

Access to abutting properties shall be maintained in a reasonable and safe manner for the duration of the construction period.

The Contractor shall carry on his/her work concurrently and in conjunction with the Utility Companies involved with the project so as to provide for all possible cooperation towards the satisfactory completion of the work with minimal delay and inconvenience to the utility owners and the general public. The Contractor shall not start any operation until all materials required for the operation are at the site or until the Engineer is satisfied that the materials will be delivered in such order that there will be no interruption to continuous and efficient progress.

DESIGNER/ TOWN HIGHWAY DEPARTMENT

DESIGNER	EASTON PUBLIC WORKS DEPARTMENT
Daniel S. Crovo, P.E.	Greg Swan, P.E. & Matthew Grosschedl, P.E.
Gill Engineering Associates, Inc.	Town of Easton Public Works
63 Kendrick Street	130 Center Street

Needham, MA 02494	North Easton, MA 02356
dcrovo@gill-eng.com	gswan@easton.ma.us & mgrosschedl@easton.ma.us
781-355-7100	508-230-0800

The Contractor shall provide at least two weeks advance notice of the start of work to the following officials in each department:

Greg Swan, P.E., Deputy Director of Public Works, 508-230-0800
Town Administrator, Town of Easton, 508-230-0510
Chief of Police, Town of Easton, 508-230-3322
Fire Chief, Town of Easton, 508-230-0750

ITEM 250.04 POLYVINYL CHLORIDE SANITARY SEWER PIPE FOOT

The work under this item shall be 4 inches in diameter and shall conform to the requirements of Section M5.03.7 of the Standard Specifications and the following:

The work under this item includes the furnishing and installation of PVC pipe for the purpose of venting air and water that is displaced during the pumping of grout into voids located beneath the stone masonry abutment footings.

The pipe shall be installed as shown on the Plans and shall be either removed or cut off flush with the top of the grout filled bags after filling the cavity below the abutment footing.

MEASUREMENT AND PAYMENT

Polyvinyl chloride sanitary sewer pipe shall be measured for payment per foot, complete in place after cut off.

Polyvinyl chloride sanitary sewer pipe will be paid for at the Contract unit price per foot, which price shall include all labor, tools, material, equipment and incidental costs required to complete the work.

ITEM 698.3 GEOTEXTILE FABRIC FOR SEPARATION SQUARE YARD

The work under these items shall conform to the requirements of Section M9.50.0 of the Standard Specifications and the following:

The work under this item includes the furnishing and installation of geotextile fabric under crushed stone and riprap.

At locations of fabric installation, the streambed shall first be graded. All rocks, vegetation, and other obstructions shall be removed before placement of fabric. The fabric shall be installed and fastened in place in conformance with the manufacturer's recommendations for each type of condition listed above.

MEASUREMENT AND PAYMENT

Geotextile fabric for separation will be measured for payment per square yard, complete in place; any overlaps shall be measured as a single layer of cloth.

Geotextile fabric for separation will be paid for at the Contract unit price per square yard, which price shall include all labor, tools, material, equipment and incidental costs required to complete the work.

ITEM 748. MOBILIZATION LUMP SUM

The work to be done under this Item shall conform to the relevant provisions of Subsection 748 of the Standard Specifications with the following modifications:

The unit bid price for Item 748, Mobilization, shall not exceed 3% of the total of all contract bid items exclusive of this Item and all of the non-bid allowance items.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT
Payment for Mobilization will be made on a lump sum basis. Payment for Mobilization shall be made at the lump sum bid price or 3% of the total of all of the contract bid items, exclusive of this item and all of the non-bid allowance items, whichever is less. The entire payment shall be made on the first estimate.

ITEM 767.121 SEDIMENT CONTROL BARRIER FOOT

The purpose of this item is to provide a linear, compost-filled tube for filtering suspended sediments from storm water flow. This item shall conform to the requirements of Section 751 and 767 of the Standard Specifications and the following.

MATERIALS

Material for the filter tubes shall be compost meeting M1.06.0, except that no manure or bio-solids shall be used. In addition, no kiln-dried wood or construction debris shall be allowed. Particle size analysis: 98% shall pass through a 3-inch (75mm) sieve; 30-50% shall pass 3/8 inches (10mm) sieve.

Tubes for compost filters shall be a minimum of 12 inches (300 mm), a maximum of 18” (450mm) in diameter. Tube material shall be a knitted mesh with 1/8” - 3/8” (3-10 mm) openings, and made of biodegradable (cotton, jute, or oxo-biodegradable) materials. Additional tubes shall be used at the direction of the Engineer.

As shown in the detail, the 1 foot (0.2 meters) wide by 2 inch (50 mm) deep wedge of compost spread along the top of the filter tube shall be incidental to this item.

Stakes for anchors, if required, shall be nominal 2 x 2 stakes.

CONSTRUCTION METHODS

Tubes of compost may be filled on site or shipped. Tubes shall be placed, filled and staked in place as required to ensure stability against water flows. All tubes shall be tamped to ensure good contact with soil.

The Contractor shall ensure that the filter tubes function as intended at all times. Tubes shall be inspected after each rainfall and at least daily during prolonged rainfall. The Contractor shall immediately correct all deficiencies, including, but not limited, to washout, overtopping, clogging due to sediment, and erosion. The contractor shall review location of tubes in areas where construction activity causes drainage runoff to ensure that the tubes are properly located for effectiveness. Where deficiencies exist, such as overtopping or wash-out, additional staking or compost material shall be installed as directed by the Engineer. Contractor shall remove sediment deposits as necessary to maintain the filters in working condition. The functional integrity of filter tubes shall be maintained in sound condition at all times. Filter tubes that are decomposing, cut, or otherwise compromised shall be repaired or replaced as directed by the Engineer and be incidental to this item. Filter tube fabric and stakes shall be removed by the Contractor when site conditions are sufficiently stable to prevent surface erosion, and after receiving permission to do so from the Engineer. All biodegradable tube fabric shall be cut and laid flat in place to decompose on-site at the direction of the Engineer. Tube fabric that is not decomposing satisfactorily shall be removed and disposed off-site by the Contractor. At the direction of the Engineer, the Contractor may rake out and seed compost so that it is no greater than 2 inches (50 mm) in depth on soil substrate.

COMPENSATION

Measurement for this item shall be by the FOOT of Compost Filter Tube installed, approved, and maintained in place. Payment shall be per FOOT and shall be compensation for all labor equipment and materials necessary to complete the work specified above, including, but not limited to, stakes and tube fabric, compost mulch wedge along top of tubes, removal and disposal of fabric and stakes, raking and seeding of compost.

ITEM 850. TEMPORARY TRAFFIC MANAGEMENT LUMP SUM

Work to be done under this item shall conform to the relevant provisions of Section 850 of the MassDOT Standard Specifications and to the following. Work under this Item consists of developing and submitting a construction staging scheme with anticipated schedule of impacts to traffic; and furnishing, installing, relocating, maintaining in proper operating condition, and removing various traffic control devices for the protection of the traveling public and working personnel during construction and maintenance operations.

The design, application, and installation of all devices shall conform to:

- Maintaining a minimum of one lane (alternating traffic) during working hours and two lanes of traffic during non-working hours
- MassDOT's "Work Zone Safety Temporary Traffic Control "Flipbook" (see Appendix D)

- MassDOT's "Standard Details and Drawings for the Development of Temporary Traffic Control Plans" and the "Manual on Uniform Traffic Control Devices" latest edition, Part VI, hereinafter referred to as MUTCD, and/or as directed.

The Contractor shall be responsible for the installation of adequate safety precautions for the protection of the traveling public and all project personnel. All materials provided by the Contractor under the items of this section shall remain the property of the Contractor upon completion of the project, unless otherwise specified below.

All work under this Item shall conform to the approved construction staging scheme, which shall be updated as needed by the Contractor throughout the life of the Project. All trenches or open excavations shall be plated or paved daily within the roadway. Where feasible, plates shall be recessed so only a ¼-inch lip is exposed.

METHOD OF MEASUREMENT

Measurement for payment for Temporary Traffic Management will be on a percent of the Lump Sum bid calculated by dividing the elapsed time to date by the original Contractual construction time limit as approved by the Engineer. No payments shall be made during extended work shutdowns. An example of this would be winter shut down.

BASIS OF PAYMENT

Payment for Temporary Traffic Management shall be based on the lump sum price bid for this item in the proposal. Under the lump sum price for this item, the Contractor shall furnish all labor, materials, tools, equipment, and incidentals required to provide, maintain, relocate, and remove Temporary Traffic Management appurtenances in areas directly or indirectly influenced by construction within the limits of work or outside the limits of work; along truck routes inside or outside the limits of work.

The work includes but is not limited to fabrication of signage; furnishing and installing signage; mounting and securing signage; maintaining signage; protecting and storing signage not in use; relocating signage; and removal of signage. The work further includes, but is not limited to: coordination with the Town and emergency services; coordination with private property owners within the limits of work; preparing, submitting, reviewing, implementing, and revising the construction staging scheme; work zone layouts, installing, and maintaining traffic management devices including, reflectorized drums, lane delineators, and cones; temporary pavement markings; removal of temporary and existing pavement markings; furnishing, installing, shimming, pinning, maintaining, and removing steel road plates; furnishing, installing, and removing cold patch pavement as necessary or as directed by the Engineer; ordering and coordinating police details; furnishing and installing temporary construction fencing; maintaining roadway; establishing and dismantling detours; covering existing traffic signs; meeting with police details; coordinating police detail locations; and all incidental work, whether listed here or not, required to provide maintenance and protection of traffic.

SPECIAL NOTES ON EXCLUSIONS

The following items are not included for payment under this item and are included for payment elsewhere; portable changeable message boards; and Police Details. Signage damaged as a result of misuse or improper handling shall be replaced by the Contractor at no additional cost to the Town.

ITEM 908.3 MASONRY SUBSTRUCTURE REPAIRS CUBIC FOOT

The work under this Item shall conform to the applicable provisions of Section 901of the Standard Specifications, the Plans, and the following:

The work shall consist of installing a cementitious grout into the abutments and wingwalls of the bridge as specified herein and shown on the Plans. Large voids between existing stones may be filled with chinking stones prior to grouting as shown on the Plans and as directed by the Engineer. The Contractor shall furnish all labor, materials and equipment required for completing the work. The grout installation work consists of, but is not limited to furnishing all materials, equipment, and labor required for placing, securing, and finishing cementitious grout fill, and weephole drains for the strengthening of the masonry abutments and wingwalls. The work shall include finishing of all newly placed grout fill within the joints to the reveal (depth from underside of stonework) of approximately 1 inch, the cleaning of excess grout material from protruding masonry, cleaning of any grout material from the river bottom or adjacent areas, and any preparatory cleaning of rock surfaces and grout fill cold joints which are to receive new grout fill.

The delivery method for installation of the grout fill may consist of pneumatic, pumping, hand placement, installation of formwork, or a combination thereof.

QUALITY ASSURANCE
Workers, including foremen, finishers and delivery equipment operators, shall be fully experienced to perform the work. All delivery equipment operators on this project shall demonstrate ability to satisfactorily place the grout fill.

The Contractor is required to have each grout delivery equipment operator perform a preconstruction qualification mock-up. Mock-ups for preconstruction qualification shall consist of contractor fabricated wooden boxes with minimum dimensions of 24 inches wide by 24 inches tall with a minimum depth of 21 inches, and contain stones of similar composition and size wedged in an arrangement which is similar to the arrangement of the stonework of the substructure. Production areas will not be permitted to be used for mock-ups. Each grout delivery equipment operator shall perform a minimum of one preconstruction qualification mock-up in a horizontal application.

The Contractor shall notify the Engineer and the Town of Easton Public Works Department not less than 1 week prior to the intended date of performing the preconstruction mock-up to be used to qualify grout delivery equipment operators. The same grout fill mix and equipment shall be used to make preconstruction qualification mock-ups as those to be used for masonry strengthening. Initial qualification of each grout delivery equipment operator will be based on a visual inspection of the grout fill density and void structure of the preconstruction qualification mock-ups. Each

mock-up shall be inspected for grout fill density, void structure, and latent material on exposed stone work while in the wooden box, and after disassembling the wooden box. The inspection of the mock-up shall also include disassembling the wooden box to examine the back surface of the grout filled zone, as well as breaking the mock-up to examine the depth of grout fill penetration into the masonry joints. Each mock-up shall be photographed and documented at each stage of the inspection. In order for the grout delivery equipment operator to be qualified, the mock-up shall show the grout fill penetration depth to be at least 15 where void depths exceed 15 inches.

The Contractor shall test the compressive strength of the grout fill used in each preconstruction qualification mock-up, testing shall be conducted in accordance with ACI 506.2 and AASHTO T24/ASTM C42. Grout delivery equipment operators will be allowed to begin production installation of grout fill based on satisfactory inspection findings of the completed preconstruction qualification mock-ups. Continued qualification will be subject to passing the 28-day strength tests and satisfactory work during production.

SITE CONDITIONS

Prior to start of any grout fill installation activity, the Contractor and Engineer shall jointly inspect the site to observe and document the preconstruction condition of the site including existing voided areas, river levels and river bottom profile. When due to the Contractor's methods or operations or failure to follow the specified/approved construction sequence, as determined by the Engineer, the costs or providing corrective actions will be borne by the Contractor.

SUBMITTALS

Upon approval of the Contractor's qualifications submittal the following information shall be submitted in writing for review and approval by the Engineer a minimum of 15 calendar days prior to the scheduled start of grout fill installation.

1. The proposed start date and proposed detailed grout installation sequence including:
    a. Plan to perform temporary control of water diverted and maintained clean
    b. Proposed methods and equipment for cleaning the bridge masonry
    c. Measures to ensure that the grout fill stability will be maintained during installation
    d. List of all proposed equipment
2. Proposed methods of grout fill placement (delivery), controlling and maintaining masonry reveal, maintaining nominal substructure alignment, and grout fill depth (thickness).
3. Proposed equipment for cleaning masonry, and for installing grout fill. All equipment shall be appropriately sized for the areas to be filled and to achieve the 18 inch grout fill depth specified on the Plans.
4. Proposed methodology for cleaning the remaining viewable masonry from latent grout fill material.
5. Proposed methodology for cleaning the river bottom from spilled, discarded, dropped, or other latent grout fill material.
6. Prewetting liquid characteristics, and application procedure. Procedure shall include times and regularity of application/reapplication.
7. Proposed hot weather work methods to ensure proper cure time and strength of finished concrete. Methods shall be in accordance with ACI 305.
8. Grout fill mix design including:

a. Type of Portland cement.
b. Aggregate source and gradation.
c. Proportions of mix by weight and water-cement ratio.
d. Proposed admixtures, manufacturer, dosage, technical literature.
e. Previous strength test results for the proposed grout mix completed within one year of the start of application may be submitted for initial verification of the required compressive strengths at start of production work.

9. Curing compound; a non-toxic, water based curing compound conforming to the requirements of ASTM C309.
10. Grout placement plan.
11. Repair location plan.
12. Any formwork or false work.

The Contractor shall submit to the Engineer the preconstruction qualification mock-ups for each proposed grout delivery equipment operator. The Engineer and Contractor shall jointly perform inspection of each mock-up. The results of all preconstruction qualification mock-up grout strength tests shall be submitted to the Engineer upon receipt. The results of all production test samples shall be submitted to the Engineer upon receipt.

MATERIALS

Furnish NEW materials without defects. Remove defective materials from the job site at no additional cost.

1. All materials for grout fill shall conform to the following requirements:
   a. Cement: AASHTO M85/ASTM C150, Type I or II – Low Alkali. The following will not be accepted:
      i. Air entrained cement
      ii. Lumnite cement
      iii. Other fast set additives
   b. Aggregate: ASTM C144 clean, natural.
   c. Water: Clean and potable, AASHTO M157/ASTM C94
2. Drain Pipes: Pipe: ASTM 1785 Schedule 40 PVC, solid wall.
3. Prewetting Liquid: Shall consist of clean potable water in accordance with AASHTO M157/ASTM C94. Additionally non-toxic additives may be combined with the water to prolong the prewetted condition of the stone masonry or to assist with grout fill adhesion to the stone masonry.
4. Curing/Surface Enhancement Coating: be non-toxic, water based in accordance with the requirements of ASTM C309.

MATERIALS HANDLING AND STORAGE

The Contractor shall store cement in a way that prevents moisture degradation and partial hydration. Do not use cement that has become caked or lumpy. Store aggregates so that segregation and inclusion of foreign materials are prevented. Do not use the bottom 3 inches of aggregate piles in contact with the ground.

GROUT FILL MIX DESIGN

A. Grout fill mix shall be a zero slump or the minimum necessary slump cement based material.
B. Aggregate: Aggregate for grout fill shall meet the gradation, strength, and durability requirements of ASTM C144.
C. Proportioning and Use of Admixtures: The dry components shall be made up of 40% Cement and 60% aggregate plus admixtures. Do not use admixtures unless approved by the Engineer. Thoroughly mix admixtures into the cement/aggregate (grout fill) dry mix at the rate specified by the manufacturer. The maximum allowable chloride ion content of all ingredients shall not exceed 0.10% when tested to AASHTO T260.
D. Strength Requirements: Provide a grout fill mix capable of attaining 4000 psi compressive strength in 28 days.
E. Mixing and Batching: Aggregate and cement may be batched by weight or by volume in accordance with the requirements of ASTM C94 or AASHTO M241/ASTM C685. Mixing equipment shall thoroughly blend the materials in sufficient quantity to maintain placing continuity. The use of retarding admixtures shall not be used.

FIELD QUALITY CONTROL

In addition to performing strength tests on the preconstruction qualification mock-up grout fill material each day, samples of production grout fill material shall be collected in the same manner as it is applied to the masonry for the purpose of testing strength. The Contractor shall provide equipment, materials, and personnel as necessary to obtain samples for testing including construction of test panel boxes and field curing requirements. Final acceptance will be based on the 28-day strength, however each day, 4 samples shall be taken, two to be tested at 3 days and two to be tested at 28 days. Testing shall be as specified within or as according to relevant provisions of Section 901 and Materials Section M4. The Contractor shall employ an independent testing laboratory to test the strength of the preconstruction and production grout fill. The independent laboratory shall prepare and provide weekly reports to the Engineer of the test results. All specimens and result data shall be uniquely identified and easily paired for comparison.

Grout fill production work may commence upon initial approval of the mix design, and inspection of the preconstruction qualification mock-up, and shall continue if the specified strengths are obtained. The work by a crew will be suspended if the test results for their work do not satisfy the strength requirements, or if, in the opinion of the Engineer, inadequate grout filling of the masonry voids is observed. Adequate filling of the masonry voids shall consist of incomplete filling, areas where grout fill is segregated, cracked, separating from the stone masonry, dripping, or any other condition which in the opinion of the Engineer represents inadequate work. The Contractor shall change all or some of the following: the mix, the crew, the equipment, or the procedures. Before resuming work, the crew must generate a new preconstruction qualification mock-up and demonstrate that the grout fill satisfies the specified strength requirements. The cost of all work required to obtain satisfactory strength tests will be borne by the Contractor.

A. Preconstruction qualification mock-up: Each grout delivery equipment operator shall furnish at least two preconstruction qualification mock-up horizontal application. Preconstruction mock-ups shall be made prior to the commencement of production work using the same equipment, materials, mixture proportions and procedures proposed for the job.
B. Production material sampling: Furnish at least four samples of grout fill each day at the time of the Engineer’s choosing, prepared in a similar method as is used to install grout fill for the

purpose of testing material strength. Immediately after collecting, field moist cure the samples by covering and tightly wrapping them with a sheet of material meeting the requirements of ASTM C171 until they are delivered to the testing lab or test specimens are extracted. Do not immerse samples in water. Do not further disturb samples for the first 24 hours after collecting. Provide at least six three inch diameter core samples cut from each preconstruction mock-up and production material sample. The Contractor has the option of extracting test specimens from samples in the field or transporting them to another location for extraction. Trim the ends of the compressive strength cores to provide test cylinders at least 3 inches long. Immediately wrap cores in wet burlap or material meeting the requirements of ASTM C171 and seal in a plastic bag. Deliver cores to the Engineer or testing lab, as directed by the Engineer, within 48 hours of collection. The remainder of the samples will become the property of the Contractor. Upon delivery to the testing lab, cores will be placed in the moist room until the time of test. When the test length of a core is less than twice the diameter, the correction factors given in AASHTO T24/ASTM C42 will be applied to obtain the compressive strength of individual cores. From the cores taken from the first production test panel cores, three cores shall be tested at 3 days and three cores shall be tested at 28 days for compressive strength per AASHTO T24/ASTM C42. From subsequent daily test panel cores, 1 core shall be tested at 3 days and the two remaining cores shall be tested at 28 days. Testing shall be as specified within or as according to relevant provisions of Section 901 and Materials Section M4.

C. The Contractor shall periodically check installed grout fill for layering, or voids, and remediate if found.

CONSTRUCTION METHODS

Provide positive control and discharge of all surface water that could affect installation of the grout fill. Repair damage caused by surface water at no additional cost. Capture surface water runoff flows and flows from exiting subsurface drainage structures and convey to an outfall structure or storm sewer, as approved by the Engineer.

The Contractor and Engineer shall jointly evaluate the masonry composition prior to commencing work to repair the abutments by filling the masonry with grout fill to identify areas that require special repairs as identified on the Plans. Following this inspection, the Contractor shall develop a grout placement plan, and repair location layout plan as well as details for the various repairs including proposed bar bends and reinforcing steel lengths.

Divert water flow from below area where work is to occur. The area shall be dry with minimal water flow through the work zone. All necessary protection methods shall be performed to make sure that no grout enters into the Queset Brook.

Clean the joints and stone masonry of all latent materials and organics with clean potable water. If power washing is used, the maximum pressure shall be less than 50 psi. Blow all joints clean with oil free air. All wash water shall be collected and disposed of off-site. The wash water shall not be discharged into the river without pre-treating. All loose materials, mud, rebound, overspray, or latent material from previous applications, or other foreign matter that could prevent or reduce grout bond shall be removed. Remove any surface material, which is loosened or damaged, to a sufficient depth to provide a base that is suitable to receive the grout fill. Remove material that

loosens as the grout fill is applied.

The stone masonry shall be prewetted immediately prior to application of grout fill. The interior of each joint, as well as an area of at least 1 inch to each side of the joint stone surface shall be prewet. Masonry which is subjected to warm temperatures or direct sunlight shall be cooled by sufficient application of prewetting liquid. The Contractor shall as part of his/her submittal on grout fill application procedures; prepare a procedure for maintaining the prewet condition of the masonry stone work, indicating when additional prewetting is necessary to optimum conditions for grout fill application. The Contractor shall perform additional prewetting to masonry at specified intervals during each work day.

The Contractor shall ensure that the thickness of grout fill satisfies the minimum requirements shown on the Plans. Ensure that the front face of the grout fill does not extend beyond the limits shown on the Plans. The Contractor may rake (trowel) back the grout fill following installation. If the Contractor elects to rake back the grout fill, it will also be the Contractor's responsibility to remove all latent grout fill material from the exposed stone surfaces. All raking of grout fill and subsequent cleaning of masonry shall be considered incidental to the work under this item.

The Contractor shall control the grout fill placement thickness, installation technique, and rate of placement to prevent sagging or sloughing of freshly-applied material. The Contractor shall repair surface defects as soon as possible after placement. Remove and replace grout which exhibits segregation, honeycombing, lamination, voids, or sand pockets. In-place grout fill determined to not meet the specified strength requirement shall be subject to remediation by removal and replacement if possible, otherwise the area shall be remediated by other methods proposed by the Contractor and approved by the Engineer. All work associated with repair of grout fill shall be at the Contractor's cost.

The grout fill finish shall be a smooth finish with amplification of finished surface of less than 1/8-inch. The finished grout fill joint surface may be finished while grout is wet, or may be rubbed following initial set time of three days. If pneumatic delivery methods are used the Contractor shall protect adjacent surfaces from overspray during shooting of grout fill using a spray applied method of installation. Pneumatic applied grout installation methods shall use equipment limiting the pressure of application to not greater than 100 psi.

During installation, the Contractor shall maintain a clean, dry, oil-free supply of compressed air sufficient for maintaining adequate nozzle velocity at all times. The equipment shall be capable of delivering the material accurately, uniformly, and continuously through the delivery hose.

The Contractor may elect to install the grout fill using a formed and pumped delivery system as an alternative to a pneumatic applied system.

The work shall be limited by the following weather limitations:

a. No grout fill shall be placed when the ambient temperature is below, or predicted to fall below 40 degrees Fahrenheit within a 48 hour time frame.
b. Suspend grout fill application during high winds and heavy rains unless suitable protective covers, enclosures or wind breaks are installed.

c. Remove and replace newly placed grout fill exposed to rain that washes out cement or otherwise makes the material unacceptable.
d. Provide a polyethylene film or equivalent to protect the work from exposure to adverse weather.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT
The work under this Item shall be measured for payment at the Contract unit price bid per cubic foot for Item 908.3 – Masonry Substructure Repair for the complete grout filling of the existing stone masonry abutments and spandrel walls of the bridge structure. The cost for this work shall include full compensation for, including, but not limited to, all labor, equipment, worker protection, environmental compliance, materials, tools, mock-ups, material sampling and testing, cleaning and prewetting the masonry, installation of grout fill and chinking stones, installation of weep hole drains, finishing work to grout fill, clean up, and any incidentals required to complete the work to the satisfaction of the Engineer in accordance will all requirements of the contract. No separate measurement shall be made for the installation of the chinking stones.

ITEM 910.1 STEEL REINFORCEMENT FOR STRUCTURES - EPOXY COATED POUND

Work under this Item shall conform to the relevant provisions of Section 901 of the Standard Specifications and the following:

The Work shall include the addition of supplemental steel reinforcement to be included in the abutment masonry repairs and the dowels used to connect the layers of grout filled bags together during the prosecution of work.

All new steel shall be lap spliced or mechanically spliced as directed by the Engineer. Welding of steel reinforcement shall not be allowed. All new steel reinforcement shall be epoxy coated.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 910.1 will be measured and paid at the Contract unit price per the actual number pounds of steel reinforcement bar in place. The contract price shall include all labor, materials, tools and equipment required to complete the work as described above and as required by the Engineer. Mechanical splicers will be measured by the product of the weight per foot of the bar being joined and the length of an AASHTO Standard Specifications for Highway Bridges Class C tension lap splice.

ITEM 988.3 CHANNEL PAVING – GROUT FILLED BAGS CUBIC YARD

Work performed under this Item shall consist of providing all labor, materials, and equipment necessary for the installation of grout filled bags for scour protection and filling undermined areas of the existing substructure with grout as specified on the plans, and as directed by the Engineer.

MATERIALS

Grout

Cement, sand, and water shall conform to M4.02.01, M4.02.02A and M4.02.04, respectively. The Grout mix shall consist of a minimum of 845 pounds per cubic yard of Type I or II Portland cement, 6% ± 1% air entrainment by volume, mortar sand aggregate, and water proportioned to provide a pumpable mixture. The minimum 28-day compressive strength shall be 3,500 psi per AASHTO T 106/ASTM C 109. The Contractor shall submit in writing to the Engineer a mix design showing the mix proportions, and test results performed by an independent testing lab.

Admixtures

All concrete grout placed underwater shall contain an anti-washout admixture such as BASF's MasterMatrix UW 450, or approved equal meeting the requirements of the U.S. Army Corps of Engineers CRD-C 661-06, Specification for Anti-Washout Admixtures for Concrete. The admixture shall be used in accordance with the manufacturer's recommendations and shall be submitted for review and approval by the Engineer. Additional admixtures may be required to achieve the required air content and pumpability. Admixtures shall conform to M4.02.05 and be listed on the MassDOT Qualified Construction Materials List (QCML) where possible. Non-QCML listed products shall conform to the requirements of ASTM C 494 (AASHTO M194) and be subject to the review and approval of the Engineer.

Grout Bags

Grout bags shall be made of a high strength water permeable fabric of nylon or cordura. Each bag/mat shall be provided with a self-closing inlet valve to accommodate insertion of the grout pumping hose. Grout filled bags shall have a maximum length of 4-feet, a maximum width of 3-feet, and a maximum thickness of 12 inches. Seams shall be folded and double stitched.

Fabric shall exhibit the following properties in both warp and fill directions:

Test Property	**Test Method**	**Specification**
Tensile Strength, min.	ASTM D1628, Grab Method	4,800 lbs./ft.
Tear Strength, min.	ASTM D2262, Tongue Method	90 lbs.

The Contractor shall submit fabric grout bag material specifications and material certification to the Engineer for review and approval. The Contractor shall follow the manufacturer's recommendations for the specific fabric grout bag material approved. If material specifications and installation requirements differ between the manufacturer and Contract Documents, they shall be brought to the attention of the Engineer for review and concurrence prior to installation.

Grout Testing

Previous test results for the proposed grout mix completed within one year of the start of work shall be submitted for initial verification of the required compressive strengths for installation.

Grout consistency as measured by grout density shall be determined by the Contractor per API RP-13B-1, conducted just prior to start of grouting. The Baroid Mud Balance used in accordance with API RP-13B-1 is an approved device for determining the grout density of neat cement grout. The measured grout density shall be within ±10% of the density specified in the grout mix design submittal.

Grout samples shall be taken directly from the grout plant (on-site mixer and pump). The Contractor shall provide grout density test results to the Engineer within 24 hours of testing.

CONSTRUCTION METHODS

The Contractor shall develop and submit to the Engineer for approval a comprehensive grout bag and scour hole grout placement procedure. This procedure shall be submitted to the Engineer for approval at least 30 days prior to the date of intended placement. The Engineer will approve or reject the Contractor's submission within 15 calendar days after receipt of a complete submission. Additional time required due to incomplete or unacceptable submittals will not be cause for a time extension or impact or delay claims. All costs associated with incomplete or unacceptable submittals shall be borne by the Contractor.

The channel shall be excavated and re-graded to the limits shown on the plans prior to placing the geotextile fabric. Geotextile fabric shall be placed prior to placing the crushed stone and grout bags/mats. Loose sediment and debris shall be removed from the scour void. Grout bags shall be placed on top of geotextile fabric placed on top of firm sound bearing material as determined by the Engineer.

The bags shall be positioned and filled so that they abut tightly to each other. No open gaps shall be permitted. Joints between bags in successive rows and tiers shall be staggered. Sufficient grout bags must be placed in front of the existing substructure to act as a retaining wall capable of resisting the horizontal pressure exerted by the grout intended to fill the scour areas. This retaining wall of grout filled bags shall form a stable wall of the required thickness, weight, and configuration. The contractor shall design and determine the required grout filled bag retaining wall configuration and shall submit all necessary design computations to the Engineer for approval. The grout bags must be allowed to cure sufficiently prior to filing the scour areas with grout.

Placement of the grout into the scour areas under the existing substructure shall continue uninterrupted until the scour holes are completely filled. Interruption of placement of grout through a single pipe shall not exceed 30 minutes without removal of the pipe or installing a new pipe and carrying out the restarting procedure.

Ready mixed grout from an automatic proportioning plant may be permitted by written permission of the Engineer. The ready mixed grout shall be listed on the MassDOT Qualified Construction Materials Listing.

The concrete/grout pump shall be capable of delivering up to 25 cy/hr.

When grout bags are used to seal off a void and then the grout mix is pumped into the void, the Contractor shall install 4-inch minimum diameter vent pipes at 4-foot maximum spacing to allow all trapped water in the void to escape while the grout is being pumped. The concrete/grout tube delivering the mix to the void shall be inserted so that the mix does not free fall. The void shall be filled by the tremie method. The vent pipes shall be removed or cut off flush with the bags when completed.

Trial Batch Testing

The Contractor's grout mix design, including admixtures, shall require trial batch testing to verify that the grout matrix remains cohesive and does not breakdown during the trial underwater placement. Production grouting of the grout bags and scour void shall not occur until approved by the Engineer after the trial batch placement has been conducted and successful results are verified.

In order to simulate the void repair, the Contractor shall construct a timber framing box, open on one end, with inside dimensions 2'-0" wide x 2'-0" tall x 6" deep. The box shall be submerged and secured against an existing upstream wingwall so that the open end of the box is facing outward toward the channel. This box opening shall serve as the trial void and shall be repaired using the Contractor's approved placement procedure using the minimum size and number of grout bags required to do so.

All materials and grout associated with the trial batch repair shall be removed from the channel after the grout has solidified.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Measurement shall be made to the nearest 0.1 cubic yards of grout filled bags and grout filled scour areas complete and accepted by the Engineer and trial batch testing as specified below. Geotextile Fabric for Permanent Erosion Control will be measured and paid for under Item 698.4.

Payment will be made at the contract unit price per cubic yards and shall be considered full compensation for all bags, grout, and all other incidental materials, flow barriers, labor, equipment, tools, re-grading, hauling, disposal, vent tubes, and incidentals necessary to complete the work, including trial batch testing, except as otherwise specified below.

Measurement and payment for the first trial batch shall be to the nearest 0.1 cubic yards, but shall not exceed 1 cubic yard. Any additional trial batches required shall not be measured for payment and shall be conducted at the Contractor's expense. All costs associated with the removal of the trial batch material shall be incidental to the work performed under this Item.

ITEM 991.1 CONTROL OF WATER - STRUCTURE NO. E06022 LUMP SUM

The work to be done under this item shall conform to the relevant provisions of Sections 140 and 950 of the Standard Specifications and the following:

The work shall include the furnishing, installation, operation, maintenance, and removal of the

water control system required for the construction of the proposed scour and erosion repairs. The Water Control System shall be capable of both preventing flow through the constructed works and the lowering of the water table to an elevation below the bottom of existing foundation, as determined by the Engineer and as shown on the plans.

The system shall divert the water flow away from the areas where the scour repairs are to be performed. Sandbags or other means of blocking and diverting the water, as approved by the Engineer, shall be used both upstream and downstream to divert the flows. The Contractor shall adjust the height of the temporary control of water system if needed, and use supplemental pumping in the event of an extreme rain event or unusually high flows.

Work shall be done during period of low flow.

Prior to installation of the Water Control System and diversion of the water, the Contractor shall notify the Town to inspect and document the existing stream bed prior to excavation.

The Contractor shall install and maintain temporary measures for the containment of the stream flow, the collection of siltation and debris due to construction activities and the maintenance of drainage through the drainage system upstream and downstream during the construction period. Temporary control measures shall include, but not be limited to, the use of sandbags, stone dikes and dams, sediment basins, crushed stone, paved or unpaved waterways and other devices or methods which meet the requirements of this section and approval of the Engineer.

The use of earthen berms in the stream is prohibited.

The Contractor shall submit a water control plan defining and detailing the methods for control of water and type of installation to be used to the Town and the Engineer for approval prior to construction. All plans, procedures and calculations shall be stamped by a Professional Engineer registered in the Commonwealth of Massachusetts. Alternate methods of dewatering may be substituted by the Contractor upon approval of the Engineer. The water control plan shall meet all the requirements of the Order of Condition requirements as noted in Appendix B and shall be approved by the Town's Conservation Agent prior to installation.

The Contractor shall submit a Frac-out Contingency Plan and documentation of the availability of flocculants within 15 minutes, if needed.

The Contractor shall submit a detailed description prepared by a qualified wetland professional of the installation means and methods of the stream bottom reconstruction to ensure consistent materials throughout the culvert with the upstream and downstream materials; construction of the thalweg, if needed; and qualifications and experience of the wetland professional for review and approval by the Owner and Easton Conservation Commission.

The Contractor shall be responsible for the removal and legal disposal of all temporary structures or devices to an off-site location. The Contractor is responsible for restoring the stream bed to its original state, regrading, loaming, and seeding of all disturbed areas, and any other incidental work required to perform this work as directed by the Engineer.

Contractor is responsible for temporary storage, stockpiling, and reinstallation of any excavated material to be utilized for streambed restoration. If excavated material is not suitable for reuse, Contractor is responsible to for proper offsite disposal. Material for reuse shall meet gradation requirements of Benthic Material Assessment in Appendix E. Additional imported materials required to complete streambed restoration shall also meet gradation requirements of Benthic Materials Assessment in Appendix E.

Prior to removal of the dewatering system, the Contractor shall notify the Town to inspect the restored stream bed.

Upon completion of the work, submit photographic and other appropriate documentation by the approved wetland professional that the streambed contains consistent material as the upstream and downstream streambed and mimics the pre-construction condition.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Payment for the work to be done under this item shall be at the contract lump sum bid price for Item 991.1 Control of Water, which price shall include all labor, materials, equipment, sandbag dam or other means of blocking water and directing flow, utility adjustments, temporary diversion pipes, excavation for temporary pipes, filter bags, pumping, removal of temporary water control devices, preparation of Frac-out Contingency Plan, preparation of stream bed restoration plan, supply, installation, maintenance, removal and disposal of turbidity curtain, stream bed restoration, thalweg construction, stockpiling, temporary storage, removal and disposal of excess excavated materials, supply and install additional material for streambed restoration, restoration of all disturbed areas and all incidental costs required to complete the work.

CONTRACT ALLOWANCE PAYMENT ITEMS

The quantity to be paid for under these items shall be the actual dollar amount paid by the Contractor to provide satisfactory police services, testing operations, additional materials, or additional artisans when stipulated and directed by the Engineer. Any associated Contractor overhead costs and profit shall be considered incidental to the cost of the contract.

ALLOWANCE ITEM 999.001 TRAFFIC POLICE

The Contractor shall furnish police services where and when required to direct traffic on existing roadways where traffic is maintained.

The Contractor shall provide such police officers as may be deemed necessary by either the Engineer or the Town for the direction and control of all traffic traveling within and through the project area. The police officers shall be obtained from the Town Police Department as applicable. The police officers shall be paid by the Contractor at the prevailing rate of wages established by the Town.

Allowance for Police Services

An allowance for the furnishing of police services has been included in all bids. This allowance is determined by multiplying the number of hours estimated as necessary by the prevailing hourly rate of wages established for such services. The Contractor shall submit certified copies of itemized bills of services rendered for review and approval by the Engineer. The allowance will be adjusted to the actual amount paid for authorized and approved police services as stipulated and shall include other payments due to any legal requirements of the State and Federal governments.

ALLOWANCE ITEM 999.300 MATERIALS INSPECTION, SAMPLING AND TESTING SERVICES

Allowance for Verification and Testing

Materials inspection, sampling and testing services shall be provided by independent testing consultants or firms that shall be retained by the Contractor to ensure compliance with the Standard Specifications and these Special Provisions. These services will include, but are not limited to the following:

- Material Inspection, Sampling, and Testing

The firm(s) selected to provide these services must be pre-qualified by MassDOT in the discipline of Materials Inspection and Testing. Staff proposed to perform concrete sampling and testing shall possess the requisite ACI/NETTCP Concrete Field Technician certifications for the tests to be performed. The Contractor shall coordinate with the firm(s) and the Resident Engineer as necessary while the work is ongoing to ensure that the appropriate materials inspection, sampling and testing is occurring. Test reports shall be provided to the Engineer with copies for the Contractor. Work on materials that fail to meet the requirements of these Special Provisions shall be promptly corrected by the Contractor in accordance with the Standard Specifications. The cost of tests that fail to show compliance will not be reimbursed to the Contractor. The Contractor shall be reimbursed under this allowance item for testing based on paid invoices from the independent testing consultant.

ALLOWANCE ITEM 999.800 ADDITIONAL MATERIALS

The Contractor will be paid his/her actual cost plus ten (10) percent for additional materials that are required to perform additional work if directed by the Engineer. However, no materials shall be ordered until approved by the Engineer and competitive prices may be required if the Engineer directs.

The Contractor is required to seek permission from the Engineer for use of artisans for the acquisition of materials. The Contractor will not bid this item. No materials that are incidental or required under a Bid Item shall be paid for under this allowance.

ALLOWANCE ITEM 999.801 ADDITIONAL ARTISANS

The Contractor will be paid his/her actual cost plus ten (10) percent for any additional artisans required

to perform additional work if directed by the Engineer. However, no subcontractor shall be ordered until the estimate has been approved by the Engineer and competitive prices may be required if the Engineer so directs.

*****END OF SPECIAL PROVISIONS*****

E-06-022
MAIN STREET OVER QUESSET BROOK
BRIDGE SCOUR REPAIR

APPENDICES

APPENDIX A

LOCUS

APPENDIX B

EASTON CONSERVATION COMMISSION
ORDER OF CONDITIONS

2026 00000511
Bk: 29714 Pg: 117 Page: 1 of 17
Recorded: 01/07/2026 01:33 PM
ATTEST: Barry J. Amaral, Register
Bristol County North Registry of Deeds

MassDEP File Number: *152-1860*

Easton Number: *1922*

City/Town *Easton*

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. GENERAL INFORMATION

1. From Easton Conservation Commission

2. This Issuance is for :

(●) Order of Conditions ( ) Amended Order of Conditions ( ) Denied Order of Conditions

3. Applicant Information

Applicant Name	*Greg Swan*				
Organization	*Department of Public Works*				
Street Number	*130*	Street Name	*Center Street*		
City/Town	*North Easton*	State	*MA*	Zip	*02356*

4. Property Owner (if different from applicant):

Owner Name	*EASTON TOWN OF*				
Organization	*Department of Public Works*				
Street Number	*130*	Street Name	*Center Street*		
City/Town	*North Easton*	State	*Massachusetts*	Zip	*02356*

5. Project Location :

Street Number	*0*	Street Name	*Main Street*	Map Block Lot	*17U*
City	*Easton*	State	*Massachusetts*	Zip	*02356*

Latitude and Longitude, if known:

Latitude	*42-03-57.58*	Longitude	*-71-05-41.5*

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):

County	*Bristol County*	Certificate # (if registered land)	

Book	*1029*	Page Number	*0439*

7. Date

Date Notice of Intent Filed	*08/04/25*	Date Public Hearing Closed	*12/15/25*	Date of Issuance	*12/17/25*

8. Final Approved Plans and Other Documents (attach additional plan or document references as needed):

Plan Title	*Town of Easton - Substructure Repair for Easton E-06-022 Main Street over Queset Brook*		
Prepared By	*Gill Engineering*	Signed and Stamped by	*Daniel S. Crovo*
Final Revision Date	*2025-12-15*	Scale	*Varies*
Additional Plan or Document Title	*MA DOT Structures Inspection Field Report*	Date	*2025-03-05*

B. FINDINGS

1. Findings pursuant to the Massachusetts Wetlands Protection Act:

Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act. Check all that apply:

☑ a. Public Water Supply	☐ b. Land Containing Shellfish	☑ c. Prevention of Pollution
☑ d. PrivateWaterSupply	☐ e. Fisheries	☑ f. WildlifeHabitat
☑ g. Groundwater Supply	☑ h. Storm Damage Prevention	☑ i. Flood Control

2. This Commission hereby finds the project, as proposed, is: (check one of the following boxes)

Approved subject to:

a. ☑ the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.

Denied because:

b. ☐ the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect these interests, and a final Order of Conditions is issued. A description of the performance standards which the proposed work cannot meet is attached to this Order.

c. ☐ the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).

☐ 3. Buffer Zone Impacts: Shortest distance between limit of project disturbance and the wetland resource area specified in 310 CMR 10.02(1)(a).

a. Linear Feet

Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4. ✓ Bank	*56 lf (temp)*	*56 lf temp.*		
	a. Linear Feet	b. Linear Feet	c. Linear Feet	d. Linear Feet
5. ☐ Bordering Vegetated Wetland				
	a. Square Feet	b. Square Feet	c. Square Feet	d. Square Feet
6. ✓ Land Under Waterbodies and Waterways	*425*	*425 lf, permanent*	*0*	
	a. Square Feet	b. Square Feet	c. Square Feet	d. Square Feet
	20	*425 sf, permanent*		
	e. c/y dredged	f. c/y dredged		

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
7. ✓ Bordering Land Subject to Flooding	*195 (temp)*	*195 sf permanent*		
	a. Square Feet	b. Square Feet	c. Square Feet	d. Square Feet
Cubic Feet Flood Storage				
	e. Cubic Feet	f. Cubic Feet	g. Cubic Feet	h. Cubic Feet
8. ☐ Isolated Land Subject to Flooding				
	a. Square Feet	b. Square Feet		
Cubic Feet Flood Storage				
	c. Cubic Feet	d. Cubic Feet	e. Cubic Feet	f. Cubic Feet
9. ✓ Riverfront Area	*300*	*300 sf temp.*		
	a. Square Feet	b. Square Feet		
Sq ft within 100 ft	*195 (temp)*	*195 sf temp.*		
	c. Square Feet	d. Square Feet	e. Square Feet	f. Square Feet
Sq ft between 100-200 ft	*0*			
	g. Square Feet	h. Square Feet	i. Square Feet	j. Square Feet

Coastal Resource Area Impacts: Check all that apply below. (For Approvals Only)

10. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below

11. ☐ Land Under the Ocean

a. Square Feet | b. Square Feet

c. c/y dredged | d. c/y dredged

12. ☐ Barrier Beaches

Indicate size under Coastal Beaches and/or Coastal Dunes below

13. ☐ Coastal Beaches

a. Linear Feet | b. Linear Feet | c. cu yd nourishment | d. cu yd nourishment

14. ☐ Coastal Dunes

a. Linear Feet | b. Linear Feet | c. cu yd nourishment | d. cu yd nourishment

15. ☐ Coastal Banks

a. Linear Feet | b. Linear Feet

16. ☐ Rocky Intertidal Shores

a. Linear Feet | b. Linear Feet

17. ☐ Salt Marshes

a. Linear Feet | b. Linear Feet | c. cu yd nourishment | d. cu yd nourishment

18. ☐ Land Under Salt Ponds

a. Square Feet | b. Square Feet

c. c/y dredged | d. c/y dredged

19. ☐ Land Containing Shellfish

a. Square Feet | b. Square Feet | c. Square Feet | d. Square Feet

Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above

20. ☐ Fish Runs

a. c/y dredged | b. c/y dredged

21. ☐ Land Subject to Coastal Storm Flowage

a. Square Feet | b. Square Feet

22. ☐ Restoration/ Enhancement *

a. square feet of BVW | b. square feet of salt marsh

23. ☐ Stream Crossing(s)

a. number of new | b. number of

stream crossings	replacement stream crossings

C. GENERAL CONDITIONS UNDER MASSACHUSETTS WETLANDS PROTECTION ACT

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.

2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.

3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.

4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:

a. the work is a maintenance dredging project as provided for in the Act; or:

b. the time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.

c. If the work is for a Test Project, this Order of Conditions shall be valid for no more than one year.

5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order. An Order of Conditions for a Test Project may be extended for one additional year only upon written application by the applicant, subject to the provisions of 310 CMR 10.05(11)(f).

6. If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not extend the issuance date of the original Fianl Order of Conditions and the Order will expire on

unless extended in writing by the Department.

7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.

8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.

9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.

10. A sign shall be displayed at the site not less then two square feet or more than three square feet in size bearing the words,

"Massachusetts Department of Environmental Protection" [or, "MassDEP"] "File Number *152-1860*

11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before MassDEP.

12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.

13. The work shall conform to the plans and special conditions referenced in this order. SEE ATTACHED SPECIAL CONDITIONS.

14. Any change to the plans identified in Condition #13 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.

15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.

16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.

17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.

18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.

19. The work associated with this Order (the "Project")

☐ a. is not subject to the Massachusetts Stormwater Standards

✓ b. is subject to the Massachusetts Stormwater Standards.

If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:

a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.

b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that:

i. all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures;

ii. as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized;

iii. any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10;

iv. all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;

v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.

c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement") for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMPs Operation and Maintenance Plan ("O&M Plan") and certifying the following: i.) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and ii.) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.

d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.

e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, and acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 18(f) through 18(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 18(f) through 18 (k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.

f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.

g) The responsible party shall:

1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);

2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and

3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.

h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.

i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.

j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.

k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.

l) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.Special Conditions (if you need more space for additional conditions, please attach a text document):

20. For Test Projects subject to 310 CMR 10.05(11), the applicant shall also implement the monitoring plan and the restoration plan submitted with the Notice of Intent. If the conservation commission or Department determines that the Test Project threatens the public health, safety or the environment, the applicant shall implement the removal plan submitted with the Notice of Intent or modify the project as directed by the conservation commission or the Department.

D. FINDINGS UNDER MUNICIPAL WETLANDS BYLAW OR ORDINANCE

1. Is a municipal wetlands bylaw or ordinance applicable? (●) Yes ( ) No

2. The EASTON Conservation Commission hereby finds (that applies):

☐ a. that the proposed work cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw specifically:

1. Municipal Ordinance or Bylaw

2. Citation

Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order of Conditions is issued.

☑ b. that the following additional conditions are necessary to comply with a municipal ordinance or bylaw: See attached

EASTON Code of Bylaws **Ch. 227**

1. Municipal Ordinance or Bylaw

2. Citation

The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.

The special conditions relating to municipal ordinance or bylaw are as follows (if you need more space for additional conditions, attach a text document):

E. SIGNATURES :

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

Date of Issuance *12/17/25*

Please indicate the number of members who will sign this form. This Order must be signed by a majority of the

Number of Signers

Conservation Commission.

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

Signatures:

/s/ Benjamin Carroll /s/

/s/ Michael Spadea /s/

/s/ Nathan Crossman /s/

/s/ Phillip Vescio /s/

/s/ Michael Goodman /s/

Jennifer Carlino, Environmental Planner, Duly Authorized, Northern Bristol County Registry of Deeds, Book no. 29270, page 279

☐ By hand delivery on

☑ By certified mail, return receipt requested on *12/17/25*

F. APPEALS :

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request of Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.

G. RECORDING CONFIRMATION

Prior to commencement of work, this Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

Easton Conservation Commission:

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Easton Conservation Commission:

Please be advised that the Order of Conditions for the project at:

Project Location: *0 Main Street* MassDEP File Number: *152-1860*

Has been recorded at the Registry of Deeds of:

County: *Bristol County* Book: Page

For:

Property Owner *EASTON TOWN OF*

and has been noted in the chain of title of the affected property on:

Book: *1029* Page: *0439*

In accordance with the Order of Conditions issued on:

Date

If recorded land, the instrument number which identifies this transaction is:

Instrument Number

If registered land, the document number which identifies this transaction is:

Document Number

☐ I do hereby certify under the pains & penalties of perjury that the information provided above is true and correct. Date *12/17/25*

Signature of Applicant

Order of Conditions 152-1860 and Permit for Work E#1922
Easton DPW
Main St at Queset Brook

Special Conditions
Special conditions listed herein are pursuant to the Massachusetts Wetland Protection Act (MGL Chapter 131, Section 40), implementing Regulations (310 CMR 10.00) and Town of Easton Wetland Protection Bylaw (Chapter 227) and Bylaw Regulations (Chapter 503).

Under Massachusetts Wetland Protection Act (MGL Chapter 131, Section 40), implementing Regulations (310 CMR 10.00)
Findings:

1) **Bank** has been identified as a resource area, subject to protection under the Wetland Protection Act and Regulations 310 CMR 10.54. Resource area boundary flags were not placed in the field. Bank has a 100-foot Buffer Zone. Bank has been identified as the stone east and west abutments beneath the road within the culvert. Temporary alteration of approximately 56 linear feet proposed to repair the abutment walls.

2) **Bordering Vegetated Wetland (BVW)** has been identified as a resource area, subject to protection under the Wetland Protection Act and Regulations 310 CMR 10.55 but has not been flagged in the field. BVW has a 100-foot Buffer Zone. BVW boundaries are not identified on the Final Approved Plans. BVW alteration is not proposed.

3) **Land Under Waterbodies and Waterways (LUWW)** has been identified as a resource area, subject to protection under the Wetland Protection Act and Regulations 310 CMR 10.56. LUWW consists of the land below Queset Brook. LUWW is significant to the Interests of protection of public and private water supply, protection of groundwater supply, flood control, storm damage prevention, prevention of pollution, protection of fisheries, and protection of wildlife habitat. LUWW alteration of 425 sf / 20 cy is proposed.

   The bottom of the culvert is the streambed of Queset Brook. Upon completion of the culvert restoration work, the streambed shall still function as the streambed of the natural stream and likely will require additional wetland professional expertise in order to demonstrate compliance with LUWW performance standards.

4) **Bordering Land Subject to Flooding (BLSF)** has been identified as a Resource Area subject to protection under 310 CMR 10.57 as shown on the final approved plans and FEMA F.I.R.M. community panel numbers 25005C0053F effective 7/7/09. The BLSF is shown as a Zone AE on the FIRM, with a Base Flood Elevation (BFE) of 121 ft. BLSF is significant to the Interests of flood control, and storm damage prevention. The project is also within the **Regulatory Floodway.** Temporary alteration for the installation of sediment controls and turbidity curtains is necessary and anticipated at 195 sf outside of the culverted channel.

5) **Riverfront Area** to Queset Brook has been identified through the identification of the mean annual high water mark as a resource area, subject to protection under the Wetland Protection Act and Regulations 310CMR10.58 as shown on the final approved plans. Resource area boundary flags were not placed in the field. Temporary alteration for the installation of sediment controls and turbidity curtains is necessary and anticipated at 195 sf.

6) The Conservation Commission determines that the project meets the Performance Standards for Riverfront Area under 310 CMR 10.58(5).

7) The proposed project does not exceed resource area thresholds for any Performance Standard and can be conditioned to meet Performance Standards for all applicable Resource Areas; therefore, the project does not need or qualify for limited project status.

8) This permit authorizes the repair of scour in the main channel of Queset Brook (LUWW) and beneath the abutments, stabilization of the existing dry-laid masonry wall (bank) by void filling with grout and stone within each abutment; and the recreation of the streambed to mimic existing conditions as shown on the Final Approved Plans.

9) No other work is approved by this Order.

Special Conditions
Administrative Conditions:

10) This Order shall be included in all construction contracts, subcontracts, and specifications dealing with the work proposed and shall supersede any conflicting contract requirements. The applicant shall assure that all contractors, subcontractors, and personnel performing the permitted work are fully aware of the permit's terms and conditions.

11) Any changes, alterations, or revisions to the project that constitute an ateration of a resource area or buffer zone or could adversely impact any resource areas or the buffer zones to these resource areas not included in the referenced plans must be approved by the Commission prior to their implementation . Failure to comply with this condition may subject the Applicant to an Enforcement Order. If the Commission finds, by a majority vote, said changes to be significant and/or deviate from the project plans, Notice of Intent, or the Order of Conditions, then the Commission may require that the Applicant file a Request to Amend the Order of Conditions or a new Notice of Intent. Within 21-days of the close of said Public Hearing, the Commission will issue an Amended Order or new Order of Conditions

12) A copy of the Final Approved Plans and the Order of Conditions shall be kept on-site at all times during construction.

13) All names, addresses, phone numbers and emergency phone numbers for all contractors shall be provided to the Conservation Commission.

14) **Prior to commencement of activities** on the project site, the applicant shall complete the following:
   a) Sediment control measures shall be properly installed;
   b) Proof of **recording**, with appropriate indexing, of the Order of Conditions at the Registry of Deeds shall be submitted;
   c) Submit the **pebble count** of existing conditions within the culvert within Queset Brook and within 50' downstream of the culvert within Queset Brook;

d) Submit a detailed description prepared by a qualified wetland professional of the installation **means and methods** of the stream bottom reconstruction to ensure consistent materials throughout the culvert with the upstream and downstream streambed materials; construction of the thalweg, if needed; and qualifications and experience of the wetland professional for commission review and approval; Submit a copy of the **Army Corps of Engineers** permit or certification;
e) Submit a **No Rise Certification** prepared by a Registered Professional Engineer in accordance with FEMA requirements for work in a Regulatory Floodway;
f) Submit a **construction sequence prepared by the contractor for commission review and approval**;
g) Submit the **dewatering/water control plan**;
h) The contractor shall submit a **Frac-out Contingency Plan and** documentation of the **availability of flocculants** within 15 minutes, if needed; and
i) A **mandatory preconstruction meeting** shall take place between the applicant/owner, contractor, subcontractors, applicant's/contractor's wetland professional and the Conservation Agent; each attendee shall bring a copy of the recorded OOC to the meeting.

15) Upon completion of all proposed and approved work the owner/applicant shall complete the following **in order to obtain a Certificate of Compliance:**
a) Ensure all disturbed areas have been stabilized with loam and seed and mowed at least twice;
b) Remove all sediment controls;
c) Submit a completed **Request for a Certificate of Compliance (DEP form WPA Form 8A);**
d) **Photographic and other appropriate documentation** submitted by a commission-approved wetland professional that the streambed contains consistent material as the upstream and downstream streambed and mimics the pre-construction condition;
e) If a No Rise Certification was not provided prior to commencement of work, then a **Letter of Map Revision** shall be submitted, or at a minimum documentation that this request has been submitted to FEMA;
f) Submit an **As-Built Plans in a pdf and the CAD file** (using the MA state plane coordinate system or have 3 or more elements that tie it into the state plane system, including but not limited to utility structures in the ROW, Utility Poles and House Corners), signed and stamped by a registered professional engineer or registered land surveyor, that includes but is not limited to, all final work completed in compliance with the proposed and approved work listed in the Notice of Intent, all regrading, visual barriers, and Resource Areas; and
g) Submit a **letter** from the registered professional engineer or registered land surveyor describing compliance with the Order of Conditions and explain any deviations from the approved plan.

16) The Conservation Commission members and Land Use/Environmental Planner have the right to enter upon the land for the purpose of inspections and/or the taking of pictures prior to the issuance of a Certificate of Compliance. Times for the same will be at the discretion of the Commission.

17) The Conservation Office shall be notified, in writing, no later than 48 hours, prior to the commencement of work on the site.

Erosion and Sediment Controls:

18) **Sediment controls** shall be:
   a) installed, and maintained at the limit of upland work as shown on the final approved plans;
   b) maintained throughout the duration of the construction project and not removed until the Conservation Commission gives approval to do so;
   c) inspected weekly by a designee of the applicant/owner and who shall have the authority to cease all work on the project should the erosion or sediment control need to be repaired, or replaced;
   d) a 12" sock instead of the silt fence in frozen conditions;
   e) biodegradable controls shall be required. Biodegradable controls include silt fence, straw bales, rolled sediment control products (i.e. mulch socks, fiber rolls, wattles etc), mulch control netting, erosion control blankets, and turf mats). **Photogdegradable, UV degradable or Oxo-(bio)degradable plastics are not considered biodegradable. Haybales shall not be used as sediment control;**
   f) shall not contain any nylon netting or nylon mesh backing, which is found to be a hazard to local wildlife. Jute netting may be used; and
   g) an adequate stockpile of sediment control materials shall be required on site at all times for emergency repairs;
   h) catch basins and throatstones shall be protected with sediment control devices;
   i) coir logs/wattles shall be not smaller than 12 inch diameter and may be staked on the wetland side rather than through the center of the log to avoid compromising the integrity of the log/wattle. Coir logs/wattles shall overlap by a minimum of 12" and be placed adjacent to, not on top of, the end roll.

19) Any areas where the limit of work is less than 50 feet to the bordering vegetated wetland, the applicant shall install a **double row of sediment controls** separated by a minimum of 10 feet as required in the EPA's Construction General Permit (CGP). It is assumed that Standard 8 of MA DEP Stormwater Management requirements will not be met until the project is in compliance with this condition.

20) If temporary or final stabilization of disturbed areas is not achieved on disturbed areas by **October 15**, temporary stabilization consisting of clean grain straw mulch at a rate of 2 tons per acre shall be applied to exposed areas (Or 3-inch thickness, with no bare spots or ground showing). Mulch anchoring shall consist of tackifier or jute netting.

21) There shall be no sedimentation into wetland or water bodies from discharge pipes or surface runoff leaving the site. Accumulated sediment in the **road shall be swept** at the end of each work day.

22) Work activities subject to Conservation Commission jurisdiction, shall not occur until the Conservation Commission and/or its Director have inspected, and approved the sediment controls at the site.

23) During activities subject to Conservation Commission jurisdiction, additional erosion and sediment controls deemed necessary by the Commission/Director shall be installed by the applicant upon such request.

24) There shall not be any alteration of wetland vegetation, the buffer zone, floodplain or riverfront area beyond the limit of work/sediment controls.

General Construction:

25) Preconstruction documentation to be submitted by a wetland professional to the commission includes, but is not limited to, a **pebble count** of existing conditions within the culvert within Queset Brook and within 50' downstream of the culvert within Queset Brook and documentation of any other stream feature identified within the culvert such as riffles/pools, downed wood etc.

26) The Contractor is prohibited from discharging groundwater, **dewatering** discharge or accumulated stormwater unless such waters are first treated by an appropriate sediment control. Appropriate controls include, but are not limited to, sediment basins or traps, dewatering tanks, weir tanks, turbidity curtains, or filtration systems (e.g., bag or sand filters) that are designed to remove sediment. Uncontaminated, non-turbid dewatering water, can be discharged without being routed to a control. Dewatering locations shall be approved by the Environmental Planner not solely by the contractor.

27) All wetland resource areas shall be kept clean of rubbish, debris, and construction materials. The applicant/owner shall be responsible for ensuring all workers at the site properly dispose of materials.

28) The contractor shall contact the Environmental Planner for an **inspection** of the streambed, at a minimum:
   a) During dewatering operations;
   b) Once the streambed is dry before any work commences;
   c) After the grout bags are installed and the streambed is ready for reserved streambed materials to be brought back in; and
   d) After installation of the reserved streambed materials, prior to restoring stream flow.

Culvert repairs and monitoring

29) Dewatering and rewatering of the culvert sections shall be done in such as way to prevent negative **impacts to wildlife** or stranding of aquatic organisms (requiring wildlife salvage), shall not increase the temperature of the water, shall not increase velocity to prevent/block fish passage and shall include energy dissipaters at the outlet to prevent erosion. If pumps are used for dewatering, the intake must be fit with a screen to prevent fish and other wildlife impingement.

30) **Machinery** shall operate from the existing road and shall not enter Queset Brook.

31) A wetland professional shall oversee and monitor work within the culvert to ensure the installation **means and methods** of the stream bottom reconstruction contain consistent materials throughout the culvert with the upstream and downstream streambed materials; the construction of the thalweg, if needed; and general compliance with this wetland permit and the WPA Regulations.

32) The contractor shall submit a **Frac-out Contingency Plan** for Conservation approval. All persons working at the site shall be trained in the Frac-out Plan, and it shall be conspicuously located at the project site during all in-stream operations. The Contractor shall have a contract and/or access to flocculants or other approved device for removing sediment from the stream, trapped by turbitity curtains, within 15 minutes of an exposure.

33) The contractor shall correcty install and perform regular inspections of the **turbidity curtains** to ensure there is no turbidity in the stream from the work. Should sediment be observed within the stream, all work shall immediately cease until the sediment is removed.

34) The Commission shall be notified immediately if there is a release of observable silt or sediment during activities.

35) In-stream culvert repairs shall only occur during a **period of low flow** (July and August); unless the dewatering and frac-out plans are approved by the commission/staff.

36) The Queset Brook streambed (culvert bottom) shall contain consistent streambed mateials to provide a continuous substrate of similar adjacent upstream and downstream streambed material and at the approximate same elevation. Soil shall be similar in nature to content, texture and size to the existing streambed. The contractor shall **reserve the soils and rocks, cobbles, boulders present in the existing streambed** and reserve them in a suitable location until they can be reinstalled along the streambed after installation of the grout bags.

37) Should access be needed over land of the Natural Resources Trust (NRT), the applicant/contractor shall provide documentation to the commission that an agreement has been made with the NRT. Should access be provided, all disturbed areas shall be permanently stabilized and the area restored to its existing natural condition.

38) Construction and post construction monitoring by the applicant/contractor shall include regular monitoring of the downstream area within the turbidity curtains for turbidity and conduct immediate action should this be observed.

39) Post contruction turbidity curtains should remain in place to ensure potential resuspended materials or turbidity does not migrate downstream during and after rewatering of the completed culvert. The applicant/contractor shall submit to the commission a proposed timeframe as well as means and methods for post construction monitoring.

Work within the Regulatory Floodway designated by FEMA

40) For work within the AE zone, a Registered Professional Engineer (RPE) shall provide a No Rise Certification (https://www.fema.gov/about/glossary/no-rise-certification-floodways) certifying that proposed work will not result in a change to the Base Flood Elevation (BFE).

41) If a No Rise Certification cannot be provided, the applicant/contractor shall provide a Conditional Letter of Map Revision (CLMR) or Letter of Map Revision (LOMR) from FEMA. Documentation of the submittal to FEMA shall be provided to the commission within one month of the completion of the project.

42) The applicant shall provide documentation that the project complies with the Easton Floodplain Overlay District §235-47, at a minimum with sections (H) and (K).

Other relevant conditions:

43) The following conditions **are in effect in perpetuity** and continue after the issuance of a Certificate of Compliance. It is the landowner's responsibility to adhere to the listed conditions: 24.

Under Easton Wetland Protection Bylaw (Ch. 227) and local Regulations (Ch. 503)

In addition to all special conditions listed pursuant to the Massachusetts Wetland Protection Act (MGL Chapter 131, Section 40), implementing Regulations (310 CMR 10.00) these additional findings/conditions are listed pursuant to the Town of Easton Wetland Protection Bylaw (Chapter 227) and Bylaw Regulations (Chapter 503).

Findings:

44) The property contains **Reservoirs, lakes, ponds (§503-13).** Reservoirs, lakes, ponds have a 100-foot jurisdictional area (§503-20) and a 100-foot No Disturbance Zone.

45) The property contains **Rivers, streams (creeks) (§503-14).** Perennial and intermittent streams have a 200-foot Riverfront Area. Rivers, streams (creeks) have a 50-foot No Disturbance Zone.

46) The property contains **Inland banks (beaches) (§503-15).** Inland banks have a 100-foot jurisdictional area. (§503-20). No alteration of Bank is proposed.

47) The property contains **Vegetated wetlands (§503-16).** Vegetated wetlands (bordering and isolated) have a 100 foot jurisdictional area and a 50-foot No Build Zone. Vegetated wetland boundaries are confirmed as they show on the Final Approved Plans. No alteration is proposed.

48) The property contains **LUWW (reservoir, lake, pond, river, stream) (§503-17).** LUWW has a 50-foot No Disturbance Zone. LUWW have a 100 foot jurisdictional area (§503-20).

49) The property contains **Land subject to flooding (LSF - bordering and isolated) (§503-18).** LSF have a 100 foot jurisdictional area (§503-20) and a 50-foot No Disturbance Zone.

Waivers:

50) Under the **Burden of Proof** §503-3, the applicant has satisfactorily demonstrated that:
   a) There are no other reasonable alternatives;
   b) Impacts to resource areas have been avoided, where possible, minimized during the public hearing process and mitigated;
   c) The project provides benefits in the public interest (health, welfare or safety to Easton community at large); and
   d) The project can be permitted for compliance with Performance Standards for all Resource Areas.

51) A waiver has been requested and granted for activities under **Waiver from Performance Standard (§503-21)** for the following resource area(s):
   a) Inland banks (beaches) (§503-15);
   b) LUWW (reservoir, lake, pond, river, stream) (§503-17);
   c) Land Subject to Flooding (§503-18); and
   d) Riverfront areas (§503-20)

Special conditions under Easton Wetland Protection Bylaw (Ch. 227) and local Regulations (Ch. 503)

52) Property owners shall utilize Integrated Pest Management (IPM) techniques for onsite pest controls and should not include second generation anti-coagulants (SGARs). SGARs commonly include Brodifacoum (Mouser, Ratak, Talon); Bromadiolone (Maki Mini Blok, Contrac), Difenacoum (Di-kill) and Difethioalone (First Strike, Hombre). Property owners shall exclude rodents from buildings by sealing holes and openings, removing external food sources and removing dumpsters in a timely fashion to reduce food sources. Property owners can utilize snap traps, electronic traps, rodent contraceptives and CO2 traps (not glue traps). Use of SGARs may be used if it is a last resort only and the property owner has tried all other methods. All bait boxes shall be labeled.

53) In addition to the perpetual conditions listed as required under MA Wetland Protection Act, the following conditions under the Bylaw **are also in effect in perpetuity** and continue after the issuance of a Certificate of Compliance. It is the landowner's responsibility to adhere to the listed conditions: 52.

END OF CONDITIONS

APPENDIX C

US ARMY CORPS OF ENGINEERS SELF-VERIFICATION NOTIFICATION

U.S. Army Corps of Engineers (USACE)

SELF-VERIFICATION NOTIFICATION (SVN)

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332.

Principal Purpose This information will be used in evaluating activities under Self-Verification procedures within Massachusetts.

Routine Uses Routine uses will include: (1) Documenting compliance with the terms and conditions of the General Permit (GP) for activities that may require authorization pursuant to one or more of USACE's Regulatory authorities. (2) Records may be referred to other Federal, State, and local agencies for evaluation and enforcement purposes.

Disclosure Failure to fully comply and abide by the GP terms and conditions prior to commencing work and after completion project may result in formal enforcement action, up to and including monetary penalties and/or legal action, pursuant to 33 CFR Part 326.

Instructions The permittee must complete ALL required sections of this document before commencing USACE-regulated activities. A copy of this completed SVN must be kept on site during construction and be made available for review by USACE and other Federal, State, & Local regulatory authorities at any time. Within 30 days of initiating project construction, the permittee shall submit the completed SVN to USACE. The SVN shall be submitted to USACE as **ONE signed document** that includes project plans and documentation that supports each field (e.g., emails, letters, description, phone calls, surveys). Electronic submissions to the following address are strongly preferred: cenae-r-ma-sv@usace.army.mil. The email subject line shall contain the following: GP #, SVN, City/Town, and date submitted.

(ITEMS 1 THRU 3 TO BE FILLED BY USACE)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED

APPLICANT AND AGENT INFORMATION

4. APPLICANT'S NAME	7. AGENT'S ADDRESS:
First - Matthew Middle - Last - Grosschedl	First - Middle - Last -
Company - Town of Easton - Department of Public Works	Company -
E-mail Address - mgrosschedl@easton.ma.us	E-mail Address -
5. APPLICANT'S ADDRESS:	**8. AGENT'S ADDRESS:**
Address- 130 Center Street	Address-
City - Easton State - MA Zip - 02356 Country -	City - State - Zip - Country -
6. APPLICANT'S PHONE NOs. w/AREA CODE	**9. AGENTS PHONE NOs. w/AREA CODE**
a. Residence b. Business 508-230-0824 c. Fax 508-230-0803	a. Residence b. Business c. Fax

NAME, LOCATION, AND DESCRIPTION OF PROJECT SITE

10. PROJECT NAME OR TITLE
Substructure Repair for Easton E006-022 Main Street over Queset Brook

11. FILE NUMBER(S) OF PREVIOUS USACE ACTIONS ON THE SITE (if applicable)	12. NAME OF WATERBODY
	Queset Brook
13. PROJECT COORDINATES (in decimal degrees)	**14. PROJECT STREET ADDRESS (if applicable)**
Latitude: ◦N 71-05-41.5 Longitude: ◦W 42-03-57.58	Address Main Street City - Easton State - MA Zip - 02356

ACTIVITY TYPE, PROJECT IMPACTS, AVOIDANCE & MINIMIZATION

15. GENERAL PERMIT ACTIVITIES (CHECK ALL THAT APPLY)

1 ☐	6 ☐	11 ☐	16 ☐	21 ☐
2 ☑	7 ☐	12 ☐	17 ☐	22 ☐
3 ☐	8 ☐	13 ☐	18 ☐	23 ☐
4 ☐	9 ☐	14 ☐	19 ☐	24 ☐
5 ☐	10 ☐	15 ☐	20 ☐	25 ☐

16. SUMMARY OF PROJECT IMPACTS (*see instructions*)

Area (square feet)	Length (linear feet)	Volume (cubic yards)	Duration
450	50	22 CYD	2 months

17. PROJECT PLANS (BY CHECKING THE BOXES BELOW, YOU CERTIFY THESE ITEMS ARE COMPLETE) (*see instructions*)

- [x] a. Plans shall at least contain the following: Vicinity Map, Plan View, and Typical Cross Section View of the proposed activity.
- [x] b. All direct, indirect and secondary impacts from USACE regulated activities are shown on the project plans.
- [x] c. The size of the impact area for each activity (acre, square feet, linear feet) are shown on the project plans.
- [x] d. For discharges of fill material (§404), the volume of fill material is identified on the project plans.
- [x] e. The duration of each impact, permanent or temporary (X days), is identified on the project plans.
- [ ] f. Do activities with permanent impacts result in the loss of waters? If so, this is identified on the project plans.
- [x] g. All aquatic resources in the vicinity of the USACE regulated activities are delineated on the project plans.

18. AVOIDANCE & MINIMIZATION (BY CHECKING THE BOXES BELOW, YOU CERTIFY THESE CRITERIA ARE MET) (*see instructions*)

- [x] a. The project has been designed to avoid and minimize impacts to aquatic resources.
- [x] b. The footprint of activities in waters of the U.S. has been reduced to only what is necessary to achieve the overall project purpose.
- [x] c. All practicable measures have been taken to avoid and minimize impacts to aquatic resources through construction techniques and site access (e.g., Best Management Practices, Time of Year Restrictions).
- [x] d. All temporary impacts from USACE regulated activities will be restored upon completion of construction and the project area will be returned to pre-construction contours and conditions.

COMPLIANCE WITH FEDERAL REGULATIONS & SUPPLEMENTAL INFORMATION

19. DUE DILIGENCE (*see instructions*)

Complete the entries below to document compliance with the following Federal requirements. Construction may NOT begin if a PCN is/may be required, and you must contact USACE to determine permitting requirements. Documentation that demonstrates how the activity complies with each field below shall be submitted to the USACE as noted in the instructions block. See each General Condition (GC) in the GP for how to comply with each requirement.

a. State Historic Preservation Officer	Per Appendix A, the activity has no potential to affect historic properties.
b. Massachusetts BUAR	Per Appendix A, the activity has no potential to affect historic properties.
c. Tribal Historic Preservation Officers	Select Option
d. Endangered Species Act - NOAA	The activity is not located within the ESA-listed Species Range.
e. Endangered Species Act - USFWS	The activity is not located within the ESA-listed Species Range.
f. Northern Long Eared Bat (ESA)	The activity is not located within the NLEB Species Range.
g. Essential Fish Habitat	The project footprint does not contain EFH (see EFH definition in the MA GP).
h. Wild & Scenic Rivers	There are no WSR's within 0.25 miles of the project area.
i. 401 Water Quality Certification 401	The activity qualifies under the general 401 WQC for the 2023 MA GPs.
	401 WQC/OOC File Number: OOC issued: 401 issued:
j. Section 408 Permission	Not Required per GC 15a-f, no Federal Projects are within the project vicinity.
k. Coastal Zone	The project is not located within the coastal zone.
l. Construction Mats	N/A, the activity does not require the installation of construction mats.
m.Time of Year Restrictions	N/A, the project is not located in a waterbody that has TOY restrictions.
n. Vernal Pools	Per GC 28, the project is not located in a vernal pool.
o. Sediment & Erosion Controls	Per GC 25, the activity uses BMPs to avoid/minimize sedimentation & erosion.
p. Stream/Wetland Crossings	The activity complies with all applicable terms in GC 31.

20. AQUACULTURE ACTIVITIES - GP 18 (*see instructions*)

- [ ] a. If required, an Aquaculture Certification from the Massachusetts Division of Marine Fisheries was obtained prior to commencing work.
- [ ] b. Coordination with the U.S. Coast Guard pursuant to Private Aids to Navigation has occurred prior to commencing work.
- [ ] c. If required, a MEPA Certificate was obtained from the Massachusetts Environmental Protection Agency prior to commencing work. Not Required
- [ ] d. The prospective permittee contacted local authorities (e.g. harbormaster, select board, shellfish constable) for authorization of their facility prior to commencing work.

21. ADDITIONAL INFORMATION/ATTACHMENTS (*see instructions*)

- [x] a. The project plans are enclosed in this SVN submittal (see block 17).
- [x] b. The activity IS NOT funded through the Bipartisan Infrastructure Bill (also known as the Infrastructure Investment and Jobs Act).
- [x] c. All required state, local and federal approvals were acquired prior to starting construction in USACE jurisdiction.
- [x] d. After construction of the activity is completed, a complete Certificate of Compliance will be submitted to USACE.

22. IS THERE ANOTHER LEAD FEDERAL AGENCY:

- [ ] YES
- [x] NO

23. STATEMENT OF AUTHORIZATION *(see instructions)*

I certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE

24. SIGNATURES *(see instructions)*

I hereby certify that the information in this Self-Verification Notification is complete and accurate. As the applicant or their duly authorized agent, I certify the activity was completed in accordance with the terms and conditions of the GP. This includes all applicable terms, general conditions, and activity-specific GP criteria. I agree to allow the duly authorized representatives of the Corps of Engineers Regulatory Program and other regulatory or advisory agencies to enter upon the premises of the project site at reasonable times to evaluate inspect and photograph site conditions. This consent to enter the property is superior to, takes precedence over, and waives any communication to the contrary. For example, if the property is posted as “no trespassing” this consent specifically supersedes and waives that prohibition and grants permission to enter the property despite such posting.

SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Instructions for Preparing a
Department of the Army
General Permit (GP) Self-Verification

Blocks 1 through 3. To be completed by the Corps of Engineers.

Block 4. Applicant' Name. Enter the name and the e-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the self-verification, please attach a sheet of paper with the necessary information marked Block 4.

Block 5. Address of Applicant. Please provide the full address of the party or parties responsible for the self-verification. If more space is needed, attach an extra sheet of paper marked Block 5.

Block 6. Applicant Telephone Number(s). Please provide the telephone number where you can usually be reached during normal business hours.

Blocks 7 through 9. To be completed, if you choose to have an agent.

Block 7. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, consultant, or any other person or organization. Note: An agent is not required.

Blocks 8 and 9. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where they can be reached during normal business hours.

Block 10. Proposed General Permit Activity Name or Title. Please provide a name identifying the proposed GP activity, e.g., Windward Marina, Rolling Hills Subdivision, or Smith Commercial Center.

Block 11. File Number(s) of Previous USACE Actions on the Site Please provide any known USACE file number. If the activity does not have a known USACE file number, you may state N/A.

Block 12. Name of Waterbody. Please provide the name (if it has a name) of any stream, lake, marsh, or other waterway to be directly impacted by the GP activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 13. Proposed Activity Coordinates. Please enter the latitude and longitude of where the proposed GP activity is located. Indicate whether the project location provided is the center of the project or whether the project location is provided as the latitude and longitude for each of the "corners" of the project area. If there are multiple sites, please list the latitude and longitude of each site (center or corners) on a separate sheet of paper and mark as Block 13.

Block 14. Proposed Activity Street Address. If the proposed activity is located at a site having a street address (not a box number), enter it in Block 14.

Block 15. General Permit Activity Type. Please select all GP activity types that apply to the proposed activity. A list of GP activity types can be found in Section III of the GP.

Block 16. Summary of Project Impacts. Please provide ALL proposed impacts, both temporary and permanent in duration, that are located in Waters of the United States. The area of impact shall be provided in square feet (SF). When applicable, impacts that result in conversion of stream bank or shoreline must also be identified in linear feet (LF). Dredging or the discharge of dredged or fill material shall also include the volume, cubic yards (CY), of material removed from or placed into Waters of the U.S. If more entries are required, please attach a table matching the desired format in Block 16.

Block 17. Project Plans. Please verify that items a-g are included in the project plans. Three types of illustrations are necessary to properly depict the proposed work. These illustrations or drawings are identified as a Vicinity Map, a Plan View (Aerial view) and a Cross Section Map. For linear projects (e.g. roads, subsurface utility lines, etc.) gradient drawings (longitudinal profile) should also be included. Plans must accurately depict the existing conditions and all aspects of the proposed activity located in waters of the U.S. Please submit one copy of all drawings formatted to print on 8½ x 11 inch or 11 x 17 inch plain white paper. Use the fewest number of sheets necessary for your drawings or illustrations. Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross section). While illustrations need not be certified engineering sheets; they should be clear, accurate, contain all necessary information, and depict all proposed work. Each submission must also include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current wetland delineation manual and regional supplement published by USACE.

Block 18. Avoidance & Minimization. Please verify that items a-d have been implemented for the proposed activity.

Block 19. Due Diligence. Please complete all the fields and submit documentation to USACE to demonstrate compliance with the above requirements. This Documentation may include emails, letters, meeting notes, phone call log, project narrative, project plans, a species list from the NOAA Section 7 Mapper, a completed copy of the IPAC determination keys, etc. Documentation should be limited to what is necessary to demonstrate how the proposed activity meets each requirement. Refer to the MA GP, Appendix A, for specific guidance on the identification of previously identified historic properties and previously unidentified historic properties. Endangered Species: *The applicant must be designated as the non-federal representative for the purposes of Section 7 consultation to select the Rangewide D-Key options. Otherwise, the applicant shall select the following option when IPAC indicates the NLEB is present: "The activity IS located within the NLEB Species Range (PCN Required)."

Block 20. Aquaculture Activities. Please verify that items a-d have been obtained or completed prior to commencing work in waters of the U.S.

Block 21. Additional Information/Attachments. Please verify that items a-d have been completed prior to commencing work in waters of the U.S.

Block 22. Lead Federal Agency. Please identify if there is another lead federal agency involved with the proposed activity. Enter the lead federal agency name (e.g., the Federal Emergency Management Agency, FEMA) and the agency's designated person of contact for the activity.

Block 23. Statement of Authorization. The applicant shall sign this section for all activities. If an agent is to be employed, the agent shall sign this section.

Block 24. Signatures. The SVN must be signed by the person proposing to undertake the GP activity, and if applicable, the authorized party (agent) that prepared the SVN. The signature of the person proposing to undertake the GP activity shall be an affirmation that the party submitting the SVN possesses the requisite property rights to undertake the GP activity.

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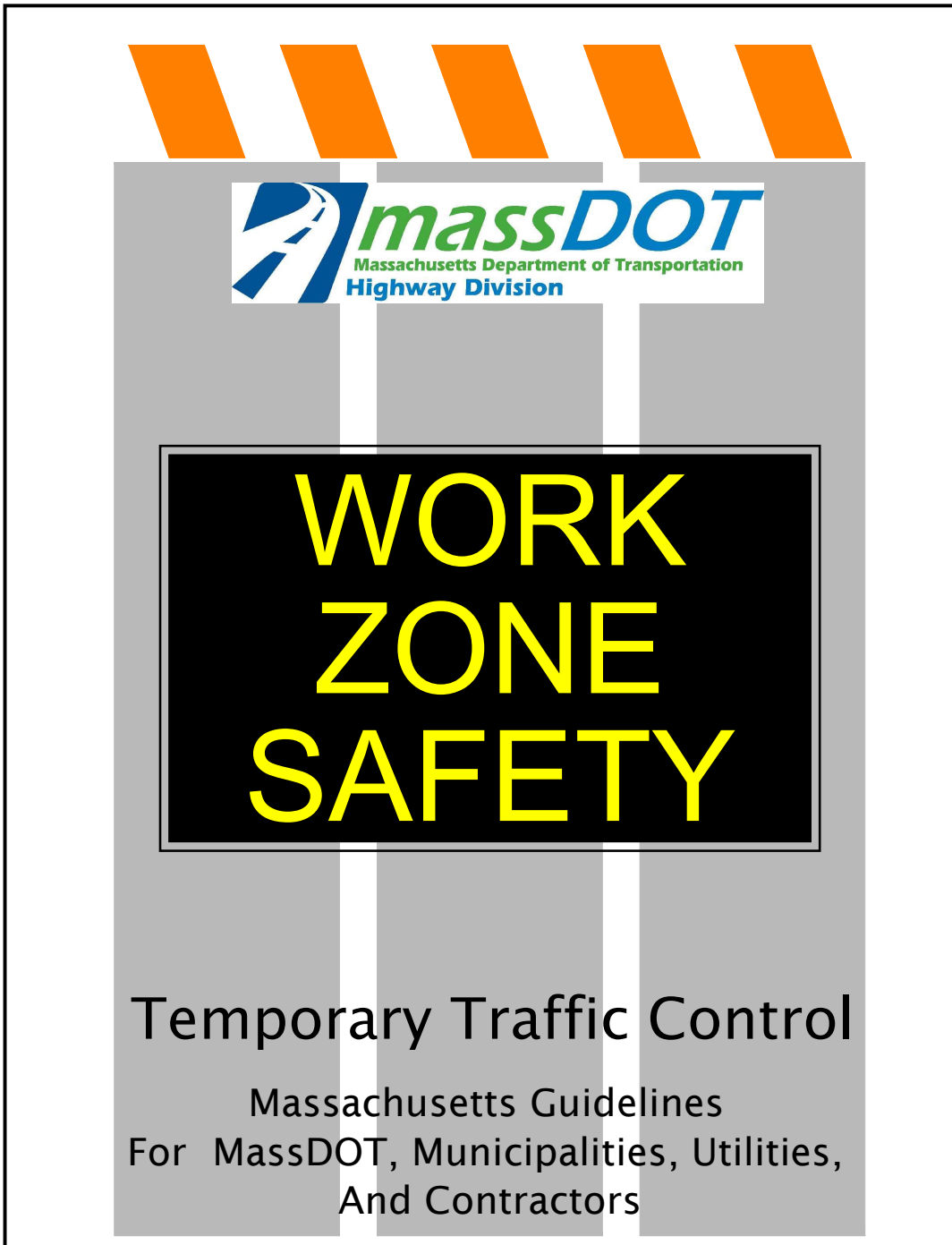
APPENDIX D

MASSDOT'S "WORK ZONE SAFETY – TEMPORARY TRAFFIC CONTROL "FLIPBOOK"



Temporary Traffic Control

Massachusetts Guidelines
For MassDOT, Municipalities, Utilities,
And Contractors

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INTRODUCTION

This guide has been prepared to assist in the planning and installing of temporary traffic controls in maintenance, utility, or short-term construction work areas (work lasting 10 hours or less). This guide serves to assist with the many decisions that must be made for each work site. Special planning for traffic control is necessary on a case by case basis because conditions can vary widely among work locations. **Since this guide cannot cover every situation, representative illustrations covering typical short-term construction, maintenance, and utility operations are presented**.

All typical traffic control device setups illustrated should be considered as guides. The traffic control devices that are shown, the arrangement or position of the devices, and the distances prescribed in the tables are based on the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) and the Massachusetts Amendments to the MUTCD (MA Amendments), but these illustrations only present minimum standards. The provision of safe work zones for all roadway users and roadway workers affected by these activities is paramount. Traffic controls may be expanded or improved upon whenever deemed necessary. Traffic movement through the work site all traffic control devices shall be periodically observed and inspected at all locations.

If necessary, Part 6 of the MUTCD and the MA Amendments, Chapter 17 (Work Zone Management) of MassDOT's Project Development & Design Guide, and the "Traffic Engineering and Safety Section" of the MassDOT web site: (https://www.massdot.state.ma.us/highway/Departments/TrafficandSafetyEngineering.aspx), as well as MassDOT District offices can provide additional guidance, information, and suggestions for work zone setups.

RESPONSIBILITIES FOR TRAFFIC CONTROL

Short-term construction, maintenance, and utility work on or near the roadway creates a potentially hazardous situation, typically requiring the use of temporary traffic controls. These controls are important to protect both work crews and the road users. It is the responsibility of each maintenance foreman to establish and maintain safe and effective controls.

Usually the supervisor, working with the crew, plans the traffic control procedures for proposed work sites. The foremen are responsible for re-questing, storing, and maintaining all traffic control devices necessary for their crews.

The foreman is responsible for placing the devices according to these guidelines. He/ She must inspect each installation and observe traffic flow through the area. The foreman is generally authorized to make adjustments to the original installations that, in his/ her judgment, are necessary to improve the control of traffic and establish greater safety.

All necessary traffic control devices must be installed before work begins and properly maintained during the work period. They must also be removed as soon as they are no longer relevant to the roadway conditions.

In situations such as night time road or lane closures, detours, or other unusual conditions on state highways, the District Traffic Maintenance Engineer (DTME) should be advised. If the DTME is absent, the section foreman shall follow the instructions of the District Maintenance Engineer.

TRAFFIC CONTROL DEVICES

Traffic control devices regulate the movement of road users, warn of unexpected or unusual roadway conditions, and inform them how to maneuver safely through or around the work area. All signs, channelizing devices, barricades, and other miscellaneous traffic control devices should work together to guide traffic safely and efficiently. Common temporary traffic control devices are outlined and described below.

Signs

Temporary traffic control zone (TTCZ) signs are the primary means of providing information and directions to roadway users. All signs must be retroreflective per MassDOT's latest standard.

Warning signs call attention to unexpected conditions and to situations that might not be readily apparent to road users on or adjacent to a roadway. Warning signs alert road users to conditions that might call for a reduction of speed or an action in the interest of safety and efficient traffic operations. Nearly all warning signs for construction and work areas have black legends and borders on a fluorescent orange background.

Regulatory signs shall be used to inform road users of selected traffic laws or regulations and indicate the applicability of the legal requirements. Regulatory signs typically have black legends and borders on a white background.

Arrow Boards

Arrow boards are a special type of sign that are highly visible work zone warning devices. They are particularly effective on highways, where both speed and volume are high. Arrow boards in the non-directional, CAUTION, mode (four corner flashing) may be used to indicate that a shoulder is closed. Arrow boards in the arrow mode shall only be used when a travel lane is dropped on a multi-lane road and one lane of traffic must merge with another. All arrow boards should be located at the beginning of each lane and shoulder taper without extending outside of the taper. Arrow boards shall flash at a rate of 25 to 40 flashes per minute.

Channelizing Devices

When used properly, traffic cones, reflectorized plastic drums, and barricades guide traffic through the work area along an appropriate travel path.

It takes roadway users a certain distance along the roadway to safely move away from the upcoming active work site. These transition distances are based on the following taper length (L) formulas:

L = $WS^2/60$ for speeds of 40 mph or less, or
L = WS for speeds of 45 mph or more, where
L = minimum length of taper in feet,
S = posted speed limit or typical travel speed in miles per hour prior to the work, and
W = width of lane closure in feet.

The spacing of channelizing devices (in feet) is approximately equal to the existing speed of traffic (in mph).

Warning Lights

Rotating beacons and other flashing lights mounted on work vehicles, signs, or channelizing devices help alert roadway users to the work area. They may also be used to warn roadway users of hazards within the work area. The first 10 drums in any taper shall be equipped with sequential flashing lights.

BASIC REQUIREMENTS

In every work situation, the temporary traffic control setup must: Give roadway users sufficient advance warning of the work area; advise roadway users of the proper actions to take and travel paths to follow; and provide protection to roadway users, workers, and the work area.

These three general requirements can be met as outlined below.

Provide Advance Warning

Warning devices along the approaches to a work area alert roadway Users to changes to road and operating conditions. Roadway users are usually alerted to these dangers via a sign or series of signs installed in the same order as the roadway user generally would expect to see them on long-term construction projects.

The initial project limit sign is usually a general warning such as “ROAD WORK 1500 FT”. Other operational warning signs then provide the roadway user with more specific information about the situation. A minimum of three advance warning signs (the initial project limit sign and two operational warning signs) is recommended when work is located on the traveled way. Warning lights and flags can be used to attract attention to the signs. A highly visible work area helps reinforce the advance warnings.

Advise and Direct Travelers

Operational warning signs provide information to the road-way user such as the type of work being performed, special conditions to watch for, or actions to take. These include signs such as, SHOULDER WORK, RIGHT LANE CLOSED, DETOUR 500 FT, ROAD CLOSED to THRU TRAFFIC, POLICE OFFICER AHEAD, etc. All of these signs must be located far enough in advance of the work area that the roadway user has sufficient time to react to them appropriately. For projects in Urban Areas, see detail: Typical Device Spacing for minimum sign spacing.

Protect Travelers, Workers, and the Work Area

The primary protection of any work area is its own visibility.

Traffic cones, reflectorized plastic drums, portable breakaway barricades, etc. are used to make the work area visible and separate workers from traffic. Other devices, such as flashing lights, flags, delineators, temporary lighting, and portable changeable message signs (PCMS) can be used to provide additional emphasis and visibility.

Workers must protect themselves by being alert to their work situation, wearing safety vests and hard hats, and by facing traffic whenever possible.

Work vehicles can also add protection when they are equipped with truck mounted attenuators, rotating beacons, flashing lights, flashing arrow boards, etc. and are parked between workers and oncoming traffic. However, workers should not position themselves between two closely parked vehicles. No private personal vehicles are allowed within the work site.

PLANNING GUIDELINES

Decisions regarding selection of work area traffic control devices require a knowledge and understanding of the specifics of each work zone. As there may be vast differences between situations, three main variables need to be considered prior to determining the need for, or the selection of, traffic control devices: 1) location of work, 2) type of roadway, and 3) speed of traffic.

Compiling information about these variables will help with planning a safe work area control. Each of these variables is explained below.

Location of Work

The choice of traffic controls needed for a short-term construction, maintenance, or utility operation depends upon the work zone's location. As a general rule, the closer the active work site is to the roadway, the more control devices are needed. Work can take place:

Away from the shoulder or edge of pavement. No special devices are needed if work is confined to an area 15 or more feet from the edge of the shoulder. A general warning sign, such as ROAD WORK AHEAD, should be used if workers and equipment must occasionally move closer to the roadway.

On or near the shoulder/ edge of pavement. This area should be signed as if work were on the road itself, since it is part of the road-way users' recovery area. Advance warning and operational signs are needed, as well as channelization devices to direct traffic and keep the work area visible to roadway users.

On the median of a divided highway. Work in this location may require traffic control in both directions of traffic. Advance warning and channelization devices should be used if the median is narrow.

On the roadway. This condition requires detailed protection for workers and sufficient warning to roadway users. Advance warning must provide a general message that work is taking place as well as information about specific hazards and specific actions the roadway user must take.

TYPE OF ROADWAY

The characteristics of the roadway also have an important influence on the selection of work area traffic control. The roadway, itself, may present special hazards. You should plan for maximum protection, using the worst hazard present as your guide to signing the work area. Some general considerations are described below for road conditions.

One-way roads. A one-way road requires signage on both sides if the road carries two or more lanes in one direction to ensure roadway users in all lanes are alerted and informed.

Two-way roads.

- Undivided: Two-way, undivided roads will usually require controls for both directions of traffic. When the active work site is well off the roadway, controls for the opposite lane may be eliminated.
- Divided: Work on divided multi-lane roadways can often be handled as work along a one-way road (i.e. signs are provided along both sides of the roadway along the direction affected). If the work is in the median, both directions of traffic must be controlled, and both approaches should be double signed (i.e. have all 3 advance warning signs on both sides of each direction).

SPEED OF TRAFFIC

Speed is an important consideration in the use of work area traffic control devices. As a general rule, the greater the speed of traffic approaching a work area, the greater the size, number, and spacing of control devices.

Size. The standard size for most warning signs is 36 x 36 inches on conventional roadways and 48 x 48 inches on freeways and expressways. Signs larger than the standard 36 x 36 inches may be desirable on high-speed conventional roads.

Position. Install signs far enough in advance of the work area so the roadway users have time to react to them (see charts associated with diagrams for spacing).

OTHER FACTORS

Sight Obstructions. To ensure safety, work areas must be visible. Assess the placement of the temporary traffic control devices by driving through the area, and determine if the devices can be easily seen and provide sufficient time for roadway users to react in a safe manner. Extra precaution should be enacted in areas where horizontal or vertical curves may obstruct a roadway user's clear view of road activities ahead.

Police/Flaggers. It should be noted that the MUTCD does not require police/ flaggers for stationary setups. If police/flaggers are used, a police/ flagger ahead sign should be used in advance of any point where the police/ flagger is stationed to control road users.

CHECK LIST FOR WORK AREA TRAFFIC CONTROL

1. PLAN YOUR WORK

Inspect location of work area and its surroundings.

Analyze:

Location of work in relation to the traveled way, intersecting road-ways, driveways, and sight distances;

Type of roadway and traffic involved; and

Volume and speed of traffic

Meet and discuss the work and necessary traffic control with the crew.

Study representative illustrations in this guide to develop a temporary traffic control plan (TTCP).

Considerations

Base your traffic control plan on the premise that all roadway users are unfamiliar with the area.

The closer the work area location is to traffic, the more controls are needed.

Plan for maximum protection.

Select and inspect the temporary control devices needed (including all warning signs), if they are not in good condition, REPLACE THEM!

Then collect and transport them to the work site.

Determine their proper placement.

Install signs and other traffic control devices prior to allowing personnel or equipment onto the roadway.

Make sure signs are reflective, accurate, clean, and meet specifications.Completely cover any existing permanent signs that will conflict with the messages of the new work area control signs

2. INSTALLING/REMOVING TEMPORARY TRAFFIC CONTROL DEVICES

Care must be exercised when installing and removing temporary traffic control (TTC) devices. The traffic control needed to perform the operation safely is dictated by the location on the roadway the operation will occur: in a shoulder or a lane, in the left lane or right, etc. In all cases, installing TTC begins and ends as a mobile operation.

A shadow vehicle with a truck mounted attenuator (TMA) shall be used to protect workers installing and removing TTC devices on all roadways with a posted speed limit of 45 MPH or greater as directed by the engineer. TTC devices shall not be installed or removed from a shadow vehicle with a TMA. TTC devices shall be installed or removed from a work operation vehicle only and a shadow vehicle with a TMA shall be used to protect the workers installing or removing the devices.

3 INSTALL TRAFFIC CONTROL DEVICES AT WORK SITE

FOR LOWER SPEED (≤ 40 MPH) ROADWAYS

1) Where one direction of traffic is being affected, the first sign installed should be the sign farthest from the work site, and on the same side as the work.
2) Where two directions of traffic are affected, install signs for opposing traffic first, starting with the sign farthest from the work area. When signs for opposing traffic have been installed, install signs on the same side as the work area, again beginning with the sign farthest from the active work site.
3) Once signs are in place, other traffic control devices shall be installed in the same manner as the signs.

FOR MULTI-LANE ROADWAYS: INSTALLATION OF STATIONARY LANE CLOSURES

Stationary lane closures on a multi-lane roadway should be installed with the flow of traffic in the following sequence:

1) Install all advance warning signs, beginning with the ROAD WORK XXX (W20-1) sign and ending with the END ROAD WORK/DOUBLE FINES END (MA-R2-10E) sign.
2) Install all signs beginning with the opposite side which will be closed (for a right lane closure; first, install all signs on the left side (shoulder) and then install all signs on the right side (shoulder). No signs shall be erected on the roadway unless delineated by traffic control devices.
3) If required, install shoulder taper as the mobile operation advances.
4) Install arrow board on the shoulder prior to the merging taper or as close to the beginning of the merging taper as possible.
5) Install channelizing devices to form a merging taper. Use of a shadow vehicle with a TMA during installation is required on roads with speed limits of 45 MPH or greater or as directed by the Engineer.
6) Install traffic control devices along the buffer space at the appropriate spacing.
7) Continue placing devices along the work space at the appropriate spacing.
8) Install devices for the termination area as necessary.
9) Place the shadow vehicle with TMA in advance of the first work crew or hazard approached by motorists. Multiple shadow vehicles may be required based on the number of lane and shoulder closures implemented.

4. INSPECT WORK AREA SIGNING AND CONTROL DEVICES

1) Assess the placement of the temporary traffic control de-vices by driving through the work area. All approaches to the work zone should be checked.
2) Ensure roadway users will have sufficient time to read signs and react in a safe manner.
3) Check visibility of entire work area. If approaching roadway users can't see the work area well, or if they can't see ahead to traffic that may already be queued on the approach because of the work, additional traffic control devices should be deployed.
4) Check to ensure the proper temporary traffic control devices are positioned to protect workers from traffic (where possible).
5) Ensure all workers wear safety vests, hard hats, and all other necessary safety equipment. All worker safety gear should be in good condition. All reflective gear should be clean and highly visible in the dark.
6) Record in the log book the number and location of all signs and devices.

Considerations

Work area signs should never be blocked from view or obscured by vegetation, existing signs, or other obstructions.
Flags, flashing lights, and edge line traffic cones can be used to improve visibility

5. REMOVE TRAFFIC CONTROL DEVICES AT WORK SITE

FOR LOWER SPEED (≤ 40 MPH) ROADWAYS

Remove workers and equipment from work site BEFORE removing signs and other devices.

1) Remove signs and other devices within the delineated area when work is complete.
2) Remove other traffic control devices in the reverse order in which they were installed
3) Remove signs in the reverse order in which they were installed (i.e. sign closest to the work area to be removed first).
4) When the operation is complete, uncover any existing permanent signs covered in Step 2, and
5) Record in the log book the time at which the signs were removed

FOR MULTI-LANE ROADWAYS: REMOVAL OF STATIONARY LANE CLOSURES
All TTC devices for a stationary lane closure on a multi-lane roadway, except advance warning signs, should be removed against the flow of traffic in the following sequence:

Remove workers and equipment from work site BEFORE removing signs and other devices.

1) Remove the channelizing devices starting from the end of the activity area working back to the widest part of the merging taper.
2) A shadow vehicle with TMA shall be positioned to protect workers removing devices and work backwards as the setup is removed from the roadway.
3) Place the removal vehicle on the shoulder, and remove the channelizing devices from the merging taper by hand onto the work vehicle.
4) Remove the arrow board once traffic is clear and it is safe to do so.
5) Circle back and moving with the flow of traffic, remove the advance warning signs starting with the opposite side from previous lane closure first.
6) At no time shall workers run across the multilane roadway to remove signs on both sides of the road simultaneously.
7) Record in the log book the time at which the signs were removed

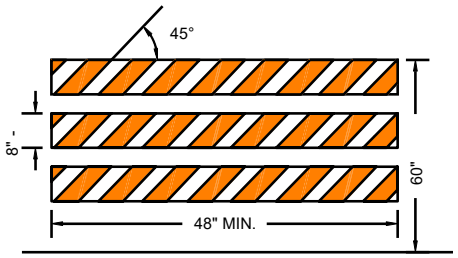
RAMP FACILITIES

At all times it is necessary to control the on and off-ramp traffic during the installation and breakdown of traffic control devices. Use of temporary traffic slow-downs or rolling roadblocks is recommended to allow for the safety of workers handing temporary traffic control devices on ramp facilities. A shadow vehicle with a TMA shall be used to protect the workers installing or removing the devices. At no time shall the work operation vehicle be used as the shadow vehicle with the TMA.

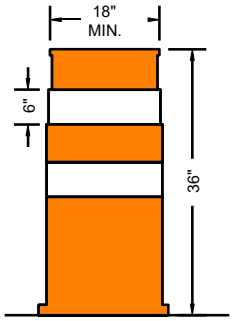
USE OF THIS GUIDE

Illustrations showing minimum standards for short-term construction, maintenance, and utility operations are arranged in this guide by type of operation. The users of this guide should compare all illustrated examples and examine their differences. After gathering information about the work zones using the general guidelines as outlined, proceed as follows:

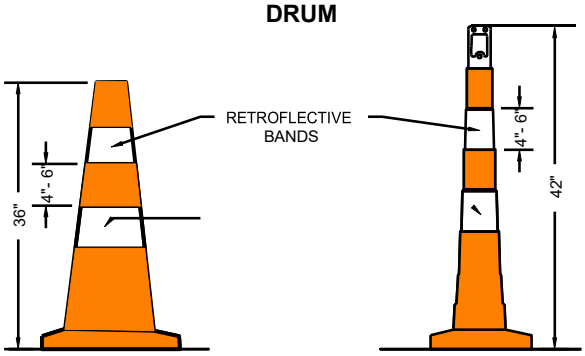
1) Turn to the Index. Consider the type of operations and the type of roadway upon which work will occur.
2) Select the figure that most closely matches the conditions where you plan to work. Remember that all diagrams represent minimum standards.
3) Read the title of the illustration to ensure that it is appropriate to your location. Study the layout of traffic control devices and read all notes.
4) Consult the appropriate tables, as directed on each illustration to determine taper length and proper spacing of signs. Notice that distances change when speeds change. Also note that these are guidelines, only, and they must be adapted to your specific work area.
5) Use the "CHECKLIST FOR WORK AREA TRAFFIC CONTROL" for assistance in completing all necessary steps to provide effective and safe work area traffic control.



TYPE III BARRICADE



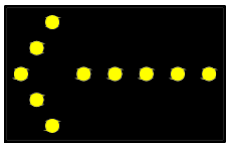
DRUM



CONES

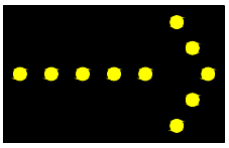
CONES

The following is applicable for short-term setups only. Cones may be used for all day time operations. For night work, drums should be used to form the taper(s) and cones can be used along the tangent section of the work setup. All cones shall be a minimum of 36" in height.



LEFT

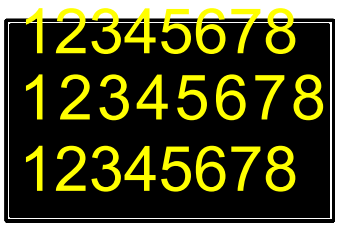
CAUTION



RIGHT

ARROW BOARD

SIGN



PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

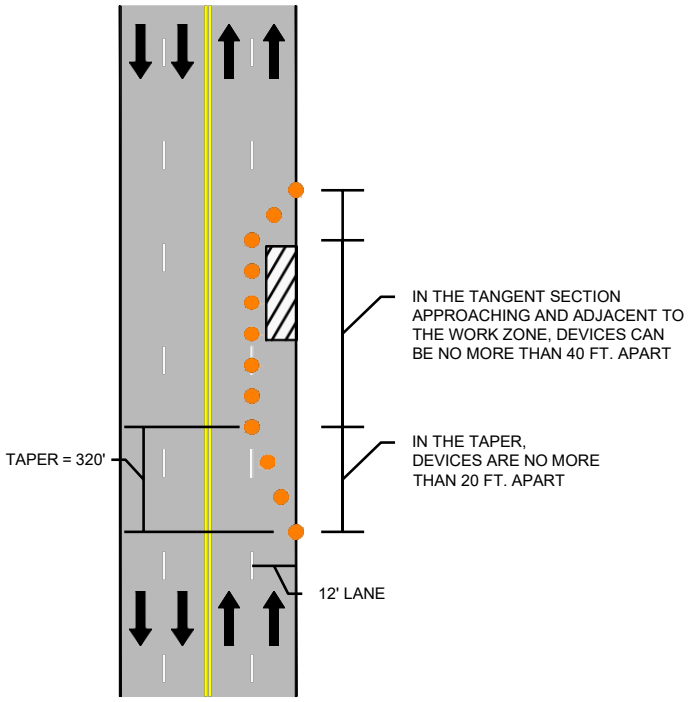
TRUCK MOUNTED ATTENUATORS

Truck Mounted Attenuators (TMA) shall be positioned between the start of the work area and the end of the designated buffer zone. The TMAs are to be positioned in each temporarily closed lane. This includes shoulders (≥8 feet) whether combined with a travel lane closure or being closed alone. These TMA conditions are required on roadways with speeds of 45 MPH or greater. TMAs can be used on other roadways at the discretion of the engineer. TMAs shall be used for the deployment and removal of all traffic control devices, including all advance warning signs.

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)			
		TRAVEL LANE CLOSURE LENGTH (L) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	500/500/500	320	305	20	55
45-55	500/1000/1000	660	495	40	40
60-65	1000/1600/2600	780	645	40	50

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.

MINIMUM SPACING OF ADVANCE WARNING SIGNS FOR URBAN ROADWAYS	
ROAD TYPE	DISTANCE BETWEEN SIGNS
URBAN (LOW SPEED)	100 FT
URBAN (HIGH SPEED)	350 FT


IN THE TANGENT SECTION
APPROACHING AND ADJACENT TO
THE WORK ZONE, DEVICES CAN
BE NO MORE THAN 40 FT. APART
IN THE TAPER,
DEVICES ARE NO MORE
THAN 20 FT. APART
TAPER = 320'
12' LANE

AT 30 MPH

= CHANNELIZATIONDEVICE

= WORK ZONE

NOT TO SCALE

NOTES

1. 40 FT = 10 FT PAVEMENT MARKING + 30 FT SKIP

massDOT Massachusetts Department of Transportation Highway Division

Work Zone Safety
Standard
Details and Drawings

FIGURE 3
TYPICAL DEVICE SPACING
NOT TO SCALE

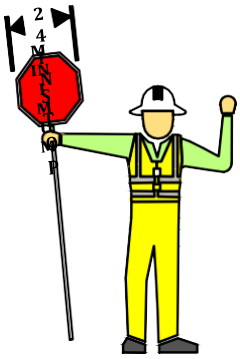
NOTE:

A flagger shall always be aware of their surroundings and have a good escape route. A flagger shall never be positioned directly beside or against construction equipment. When a flagger is required to direct traffic in an area where the escape route is partially blocked by a traversable obstruction such as a guardrail, the flagger shall be physically capable of traversing that obstruction. Prior to commencing a project, the supervisor in charge shall review the project, including guardrail areas, for safe flagging stations. The supervisor in charge shall clearly communicate with the flagger(s), indicating any locations where they cannot safely perform their duties.

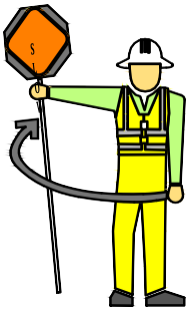
Each flagger shall be equipped with the following high visibility clothing, signaling, and safety devices:
(1) A white protective hard hat with a minimum level of reflectivity per the requirements of ANSI, Type I, Class E&G;
(2) A clean, unfaded, untorn lime/yellow reflective safety vest and pants meeting the requirements of ANSI 107 Class 3 with the words "Traffic Control" on the front and rear panels in minimum two (2) inch (50 millimeter) high letters;
(3) A 24 inch "STOP/SLOW" traffic paddle conforming to the requirements of Part 6E.03 of the Manual on Uniform Traffic Control Devices (MUTCD), a weighted, reflectorized red flag, flagger station advance warning signage, and two-way radios capable of providing clear communication within the work zone between flaggers, the Contractor, and the Engineer. The traffic paddle shall be mounted on a pole of sufficient length to be seven feet above the ground as measured from the bottom of the paddle;
(4) A working flashlight with a minimum of 15,000 candlepower and a six inch red attachable wand, a whistle with a working lanyard, and a First Aid kit that complies with the requirements of ANSI Z308.1.
(5) An industrial/safety type portable air horn that complies with the requirements of the U.S. Coast Guard.

A "STOP/SLOW" paddle should be the primary hand-signaling device. It shall have an octagonal shape on a rigid handle. Flag use should be limited to emergency situations.

TO STOP TRAFFIC



TO LET TRAFFIC PROCEED



TO ALERT AND SLOW TRAFFIC

Properly Trained Flaggers

- Give clear messages to drivers
- Allow distance for drivers to react
- Coordinate with other flaggers
- Use standard signaling methods

Properly Equipped Flaggers

- Use approved stop/slow paddles
- Use approved safety apparel
- Use retroreflective equipment
- Use hand held radios, as needed
- All flaggers shall wear safety apparel that meets ANSI Class 3 requirements. The combination of vest and pants is required.

Proper Flagging Stations

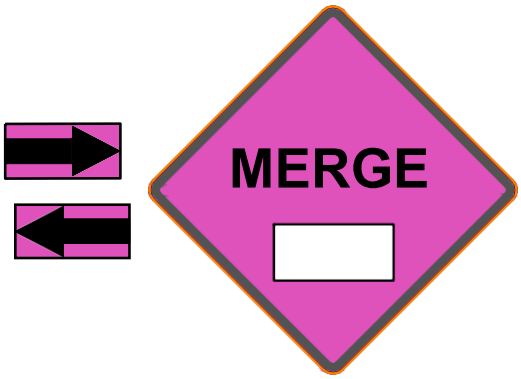
- Good approach sight distance
- Highly visible to traffic
- Stand alone away from other machinery and people
- Stand on right edge of pavement or shoulder- proceed to centerline only when first vehicle has come to stop.
- At night, flagger station shall be illuminated
- Have a good escape route.

Proper Advance Warning Signs

- Always use warning signs
- Allow reaction distance from signs
- Remove signs if no longer necessary or not flagging
- Use free hand in up-and-down motion to help slow traffic.

- The goal for this effort is to increase Awareness of Highway Emergency/Incidents.
- These signs are to be used to differentiate from the traditional construction work zone and a Highway Emergency/Incident.
- Upon arrival MassDOT First Responders shall assess the magnitude of the scene to determine if the incident is likely to last an hour or more in duration which would trigger the requirement to use these signs.
- Place the “Emergency Ahead” sign on the same side of the road as the incident, if possible, for up to an hour. Emergency response signs should be put up for all incidents and emergencies as soon as possible
- Place the emergency sign 500 to 1000 feet before the closure.
- As an incident evolves this sign would be used as a secondary sign with all other emergency controls put in place.
- Only use “MERGE” signs where applicable. (Not on 2 lane roads).
- Use MERGE signs on Multi-lane Roads to move traffic away from the incident and keep them in a safe lane.
- Place the MERGE sign about 500 feet before the closure.
- If additional signs are available, they should be placed accordingly as a sign informing people coming in the other direction or on the opposite side of the roadway.
- Use 12 emergency cones spaced 40 to 80 feet apart to form a taper and protect the scene.
- During a major incident that will last for a long duration, the EMERGENCY AHEAD sign should be moved back before an intersecting road or ramp to alert travelers and give them an option of using an alternate route. (Be sure all other devices are in place before moving this sign).

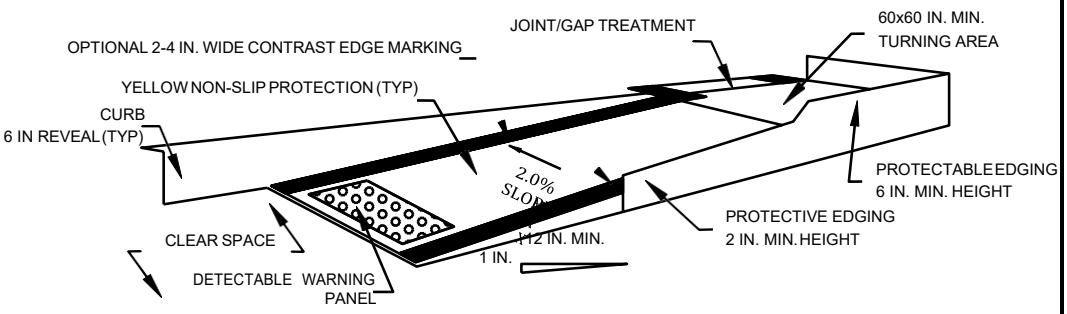
MA-W20-9



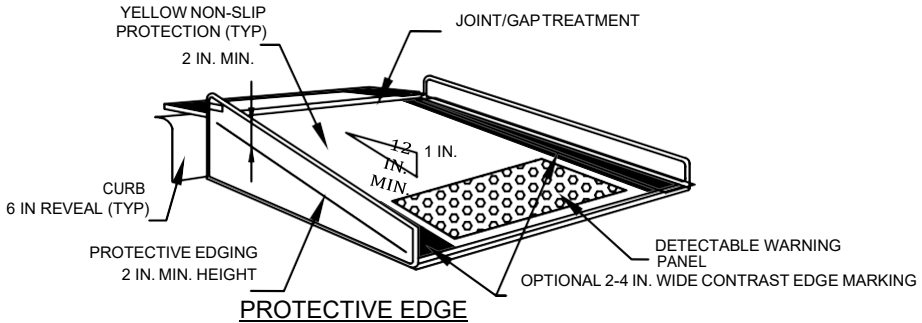
MA-W4-2aR/L

NOTES:

1. CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE, AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2 IN. MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6 IN. OR GREATER OR HAS A SIDE APRON SLOP STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3 IN. OR MORE.
3. PROTECTABLE EDGING WITH 6 IN. MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
5. CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
6. CLEAR SPACE OF 48x48 IN. MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
7. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5 IN. WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5 IN. LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25 IN. HIGH, AND BEVELED AT 1:2 BETWEEN 0.25 IN. AND 0.5 IN. HEIGHT.
10. IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PAD MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD SHALL NOT BE INSTALLED ON THE RAMP.

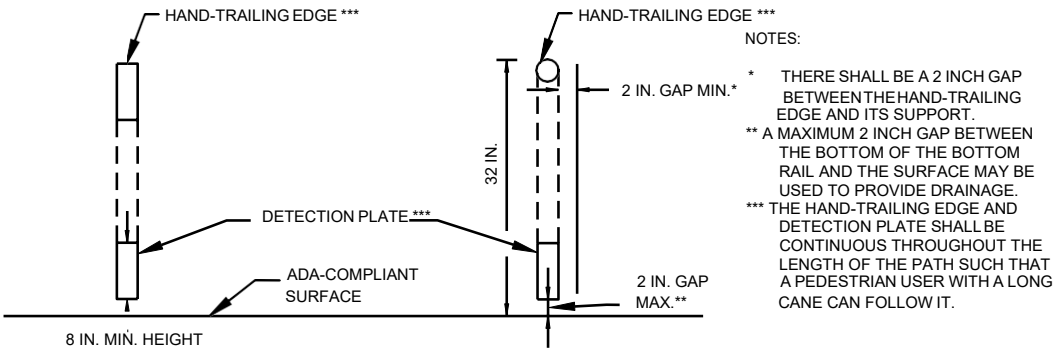


TEMPORARY CURB RAMP-PARALLEL TO CURB



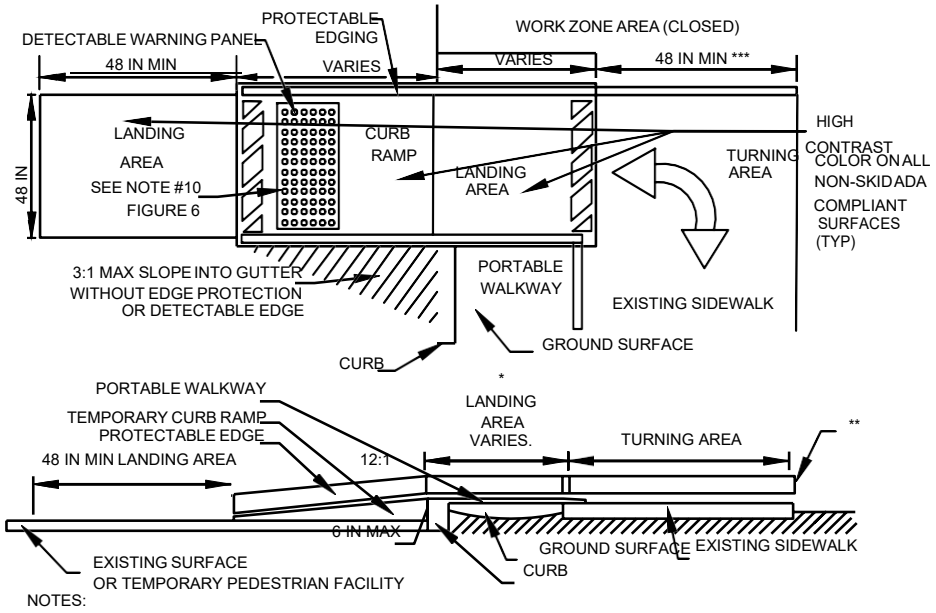
PROTECTIVE EDGE

TEMPORARY CURB RAMP-PERPENDICULAR TO CURB


HAND-TRAILING EDGE ***
HAND-TRAILING EDGE ***
2 IN. GAP MIN.*
32 IN.
DETECTION PLATE ***
ADA-COMPLIANT SURFACE
2 IN. GAP MAX.**
8 IN. MIN. HEIGHT
NOTES:
* THERE SHALL BE A 2 INCH GAP BETWEEN THE HAND-TRAILING EDGE AND ITS SUPPORT.
** A MAXIMUM 2 INCH GAP BETWEEN THE BOTTOM OF THE BOTTOM RAIL AND THE SURFACE MAY BE USED TO PROVIDE DRAINAGE.
*** THE HAND-TRAILING EDGE AND DETECTION PLATE SHALL BE CONTINUOUS THROUGHOUT THE LENGTH OF THE PATH SUCH THAT A PEDESTRIAN USER WITH A LONG CANE CAN FOLLOW IT.

CROSS SECTION VIEW

PEDESTRIAN CHANNELIZING DEVICE



NOTES:

* LANDING AREA USED TO OVERLAP NON-ADA COMPLIANT SURFACES.
** DETECTABLE EDGE REMOVED IF A CONTINUOUS SIDEWALK.
*** 60 IN. IF AN OBSTRUCTION IS AT BACK OF SIDEWALK.

TEMPORARY CURB RAMP

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)			
		TRAVEL LANE CLOSURE LENGTH (L) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	500/500/500	50	100	20	30
45-55	500/1000/1000	100	150	40	20

IF POLICE/FLAGGER SUPPORT IS REQUIRED PROVIDE TWO.
* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.

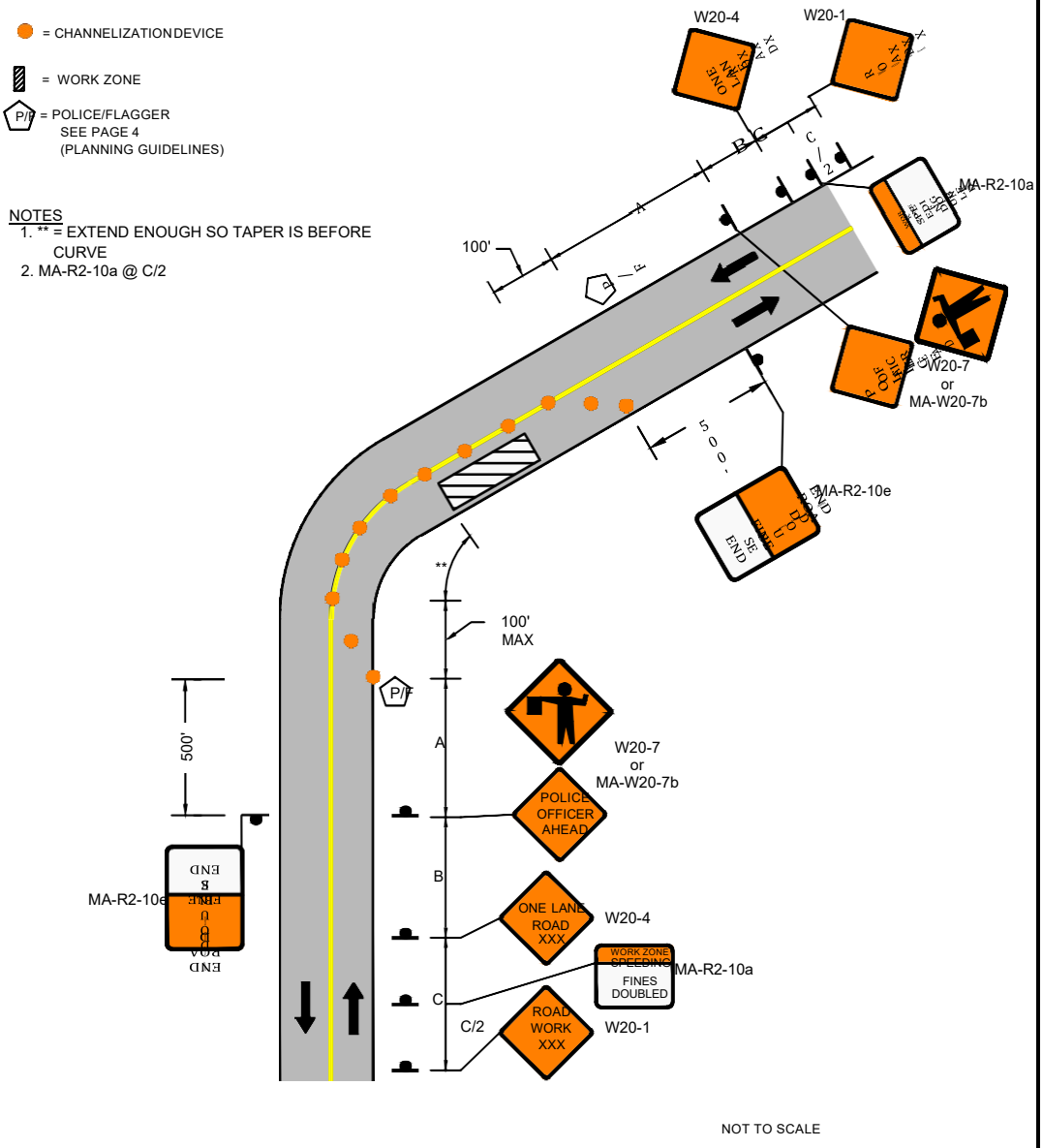


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FIGURE 8
STATIONARY OPERATIONS
TWO LANE UNDIVIDED ROADWAY
HALF OF ROADWAY CLOSED
WORK NEAR CURVE
NOT TO SCALE

POSTED REGULATORY OR WORK ZONE SPEED	SEPARATION BETWEEN RUMBLE STRIPS
36-mph to 55-mph	15-feet
35-mph and under	10-feet

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)			
		TRAVEL LANE CLOSURE LENGTH (L) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	500/500/500	50	100	20	30
45-55	500/1000/1000	100	150	40	20

IF POLICE/FLAGGER SUPPORT IS REQUIRED PROVIDE TWO.
* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.

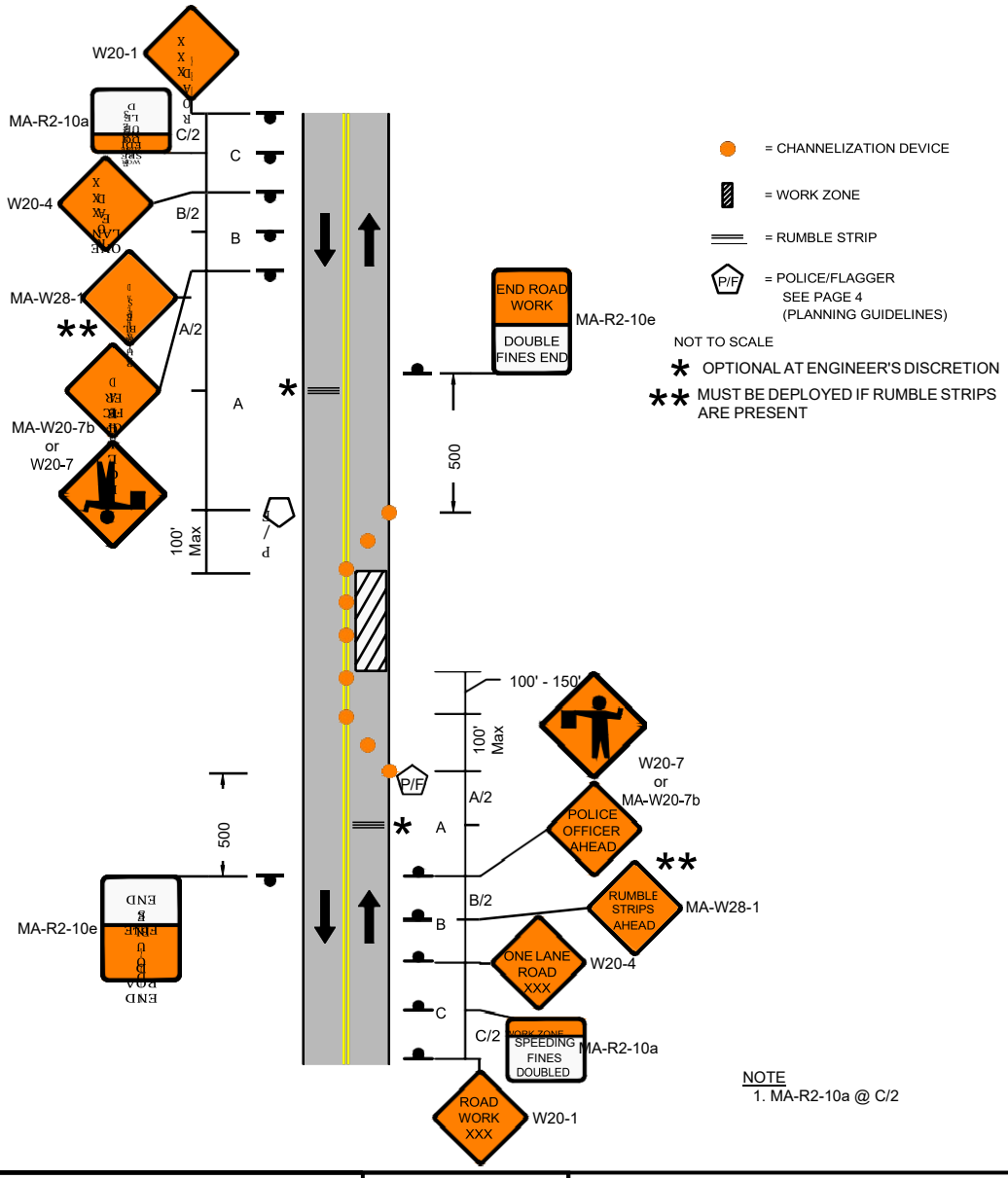

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FIGURE 9
STATIONARY OPERATIONS
TWO LANE UNDIVIDED ROADWAY
HALF OF ROADWAY CLOSED
NOT TO SCALE

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)			
		SHOULDER TAPER LENGTH (L/3) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	500/500/500	110	305	20	45
45-55	500/1000/1000	220	495	40	30
60-65	1000/1600/2600	260	645	40	35

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.

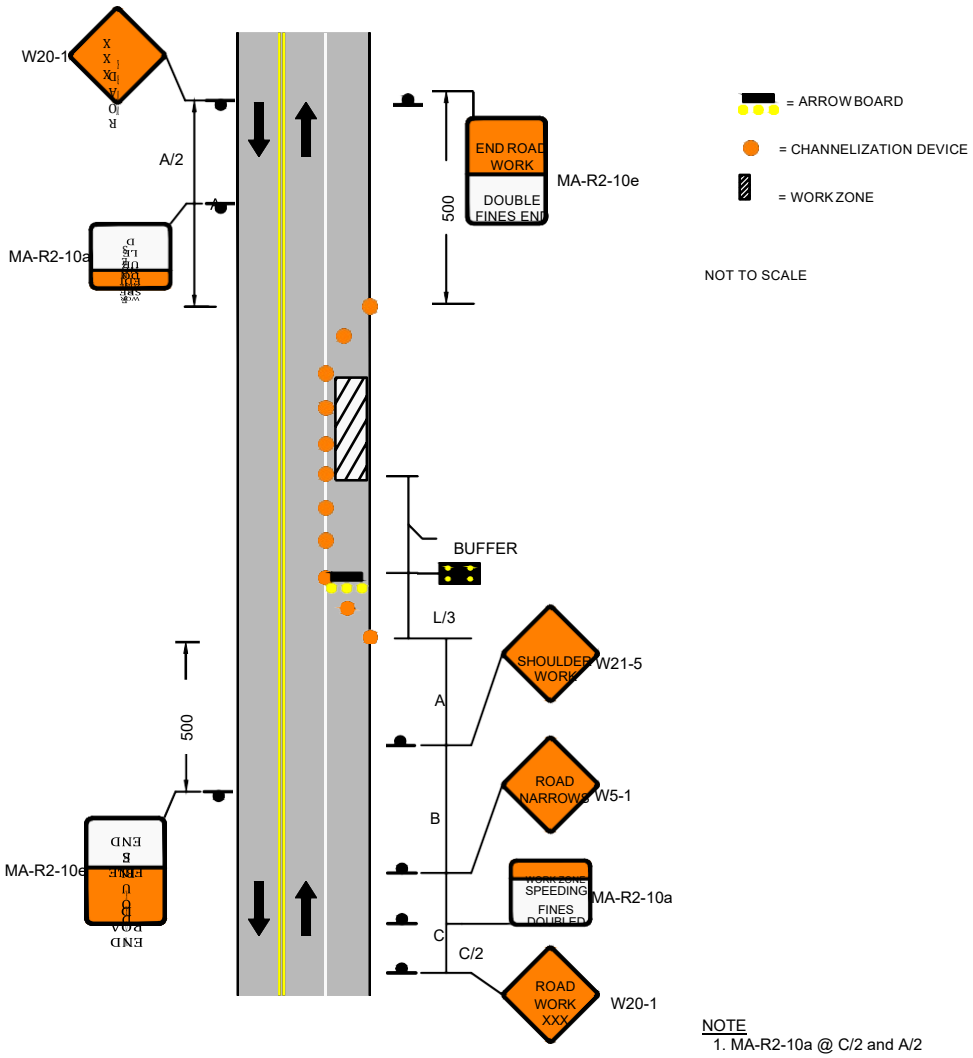

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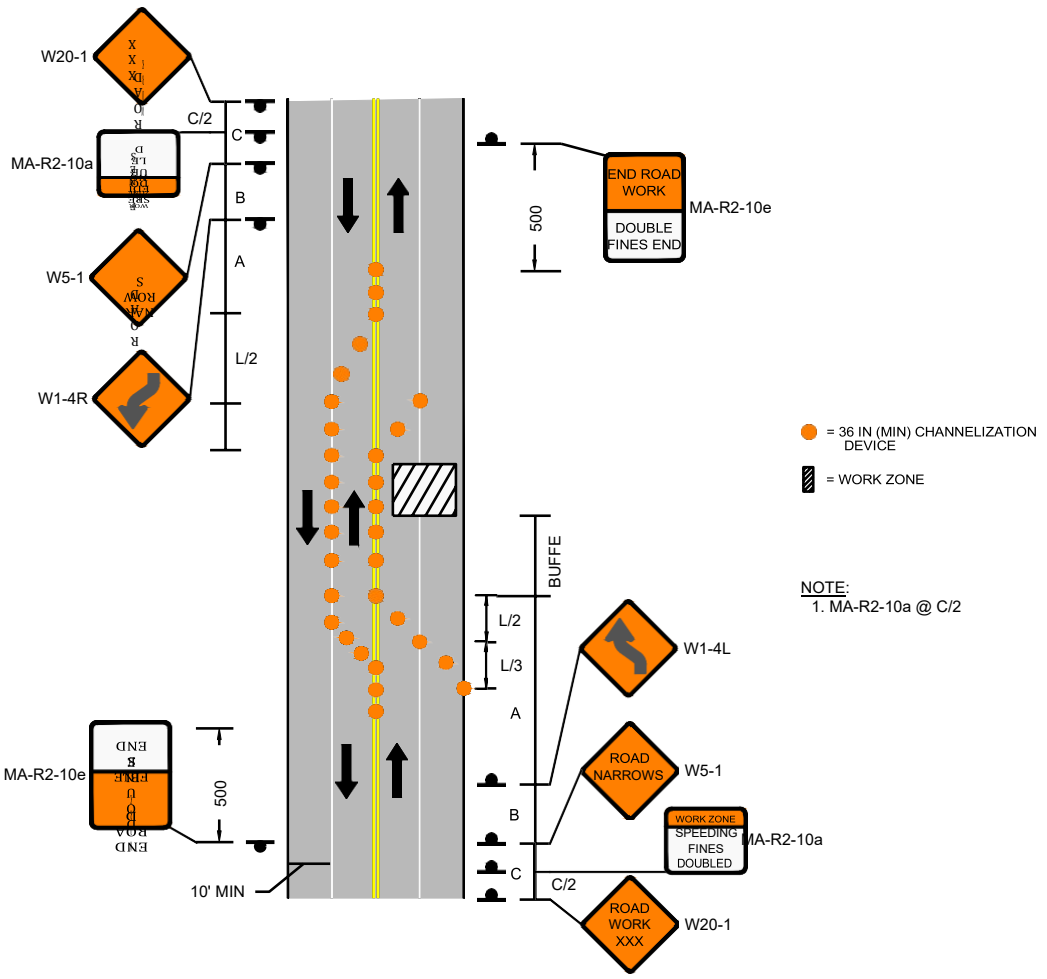
FIGURE 10
STATIONARY OPERATIONS
TWO LANE UNDIVIDED ROADWAY
SHOULDER CLOSED
NOT TO SCALE

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)
25-40	500/500/500
45-55	500/1000/1000
60-65	1000/1600/2600

POSTED SPEED LIMIT (MPH)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)				
	SHOULDER TAPER LENGTH (L/3) (FT)	TRAVEL LANE SHIFT LENGTH (L/2) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	110	160	305	20	125
45-55	220	330	495	40	100
60-65	260	390	645	40	115

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.

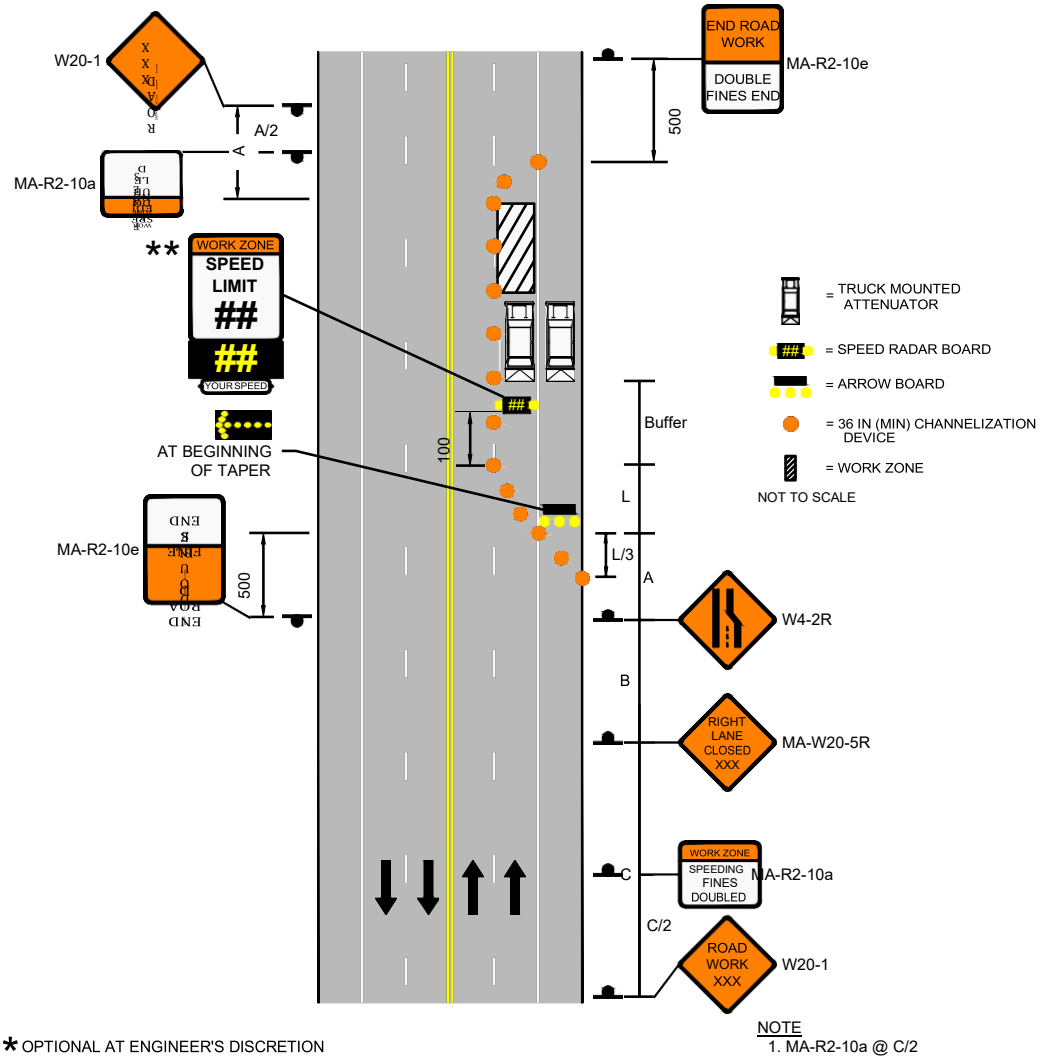


massDOT Massachusetts Department of Transportation Highway Division	Work Zone Safety Standard Details and Drawings	FIGURE 11 STATIONARY OPERATIONS TWO LANE UNDIVIDED ROADWAY WITH TRAVERSABLE SHOULDER SHOULDER AND HALF OF ROADWAY CLOSED MAINTAIN TWO WAY TRAFFIC NOT TO SCALE

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)
25-40	500/500/500
45-55	500/1000/1000
60-65	1000/1600/2600

POSTED SPEED LIMIT (MPH)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)				
	SHOULDER TAPER LENGTH (L/3) (FT)	TRAVEL LANE CLOSURE LENGTH (L) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	110	320	305	20	60
45-55	220	660	495	40	50
60-65	260	780	645	40	55

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.



** OPTIONAL AT ENGINEER'S DISCRETION

NOTE
1. MA-R2-10a @ C/2

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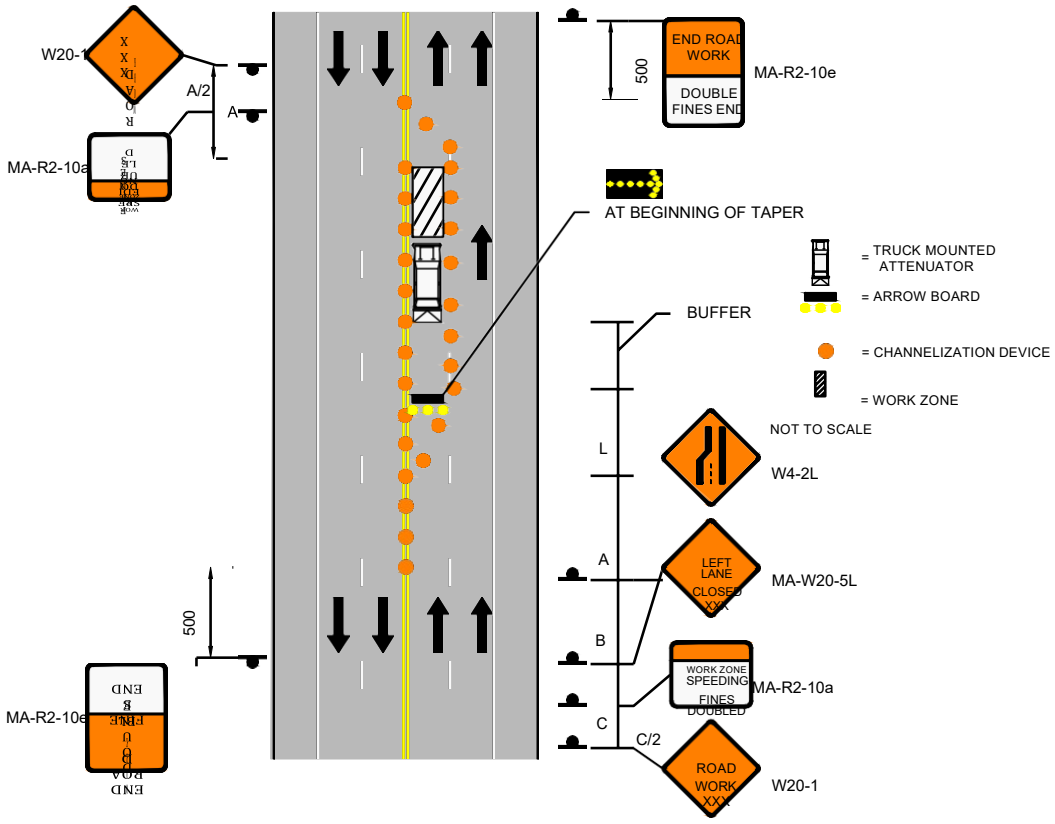
FIGURE 12
STATIONARY OPERATIONS
FOUR LANE UNDIVIDED ROADWAY
SPEED READER BOARD
RIGHT LANE CLOSED
NOT TO SCALE

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)			
		TRAVEL LANE CLOSURE LENGTH (L) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	500/500/500	320	305	20	105
45-55	500/1000/1000	660	495	40	80
60-65	1000/1600/2600	780	645	40	100

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.

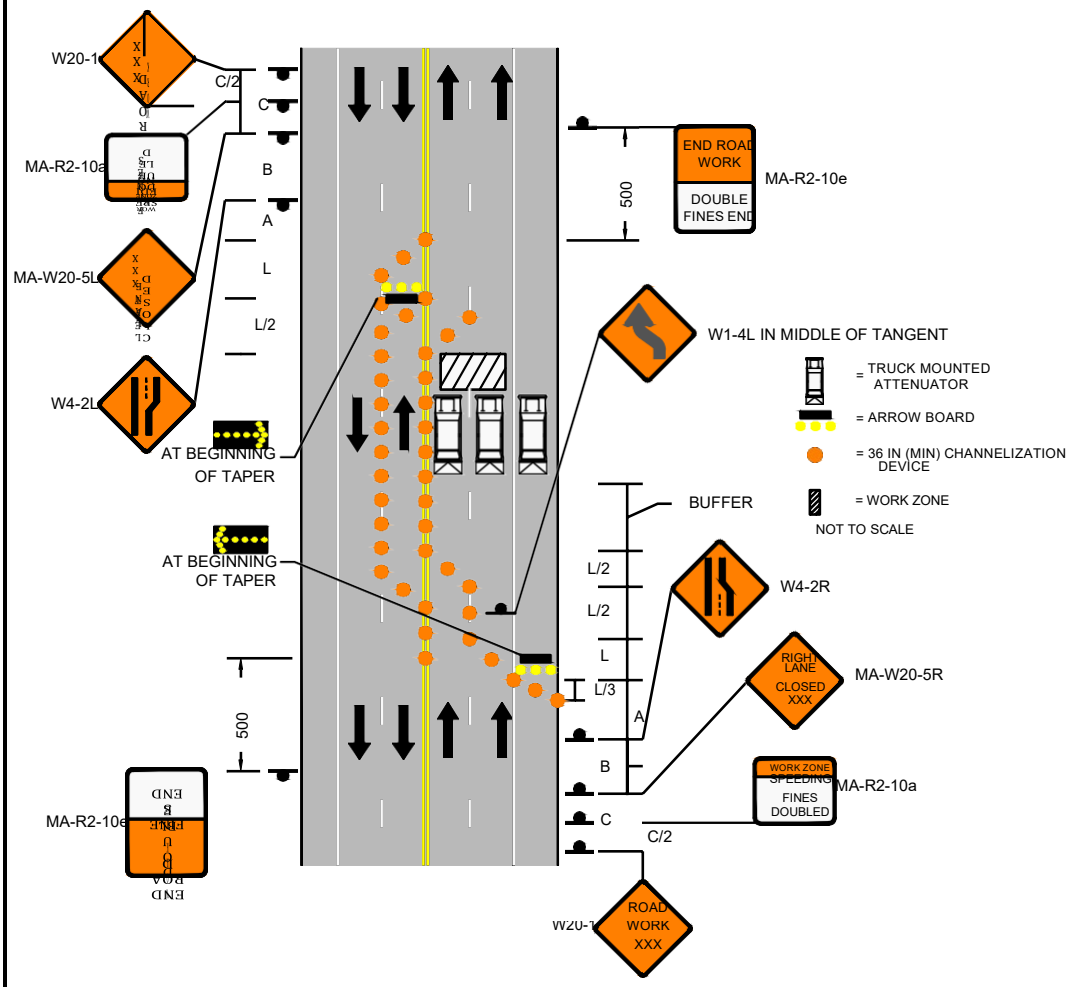


NOTE
1. MA-R2-10a @ C/2 and A/2

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)
25-40	500/500/500
45-55	500/1000/1000
60-65	1000/1600/2600

POSTED SPEED LIMIT (MPH)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)					
	SHOULDER TAPER LENGTH (L/3) (FT)	TRAVEL LANE CLOSURE LENGTH (L) (FT)	TRAVEL LANE SHIFT LENGTH (L/2) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	110	320	160	305	20	140
45-55	220	660	330	495	40	120
60-65	260	780	390	645	40	140

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.



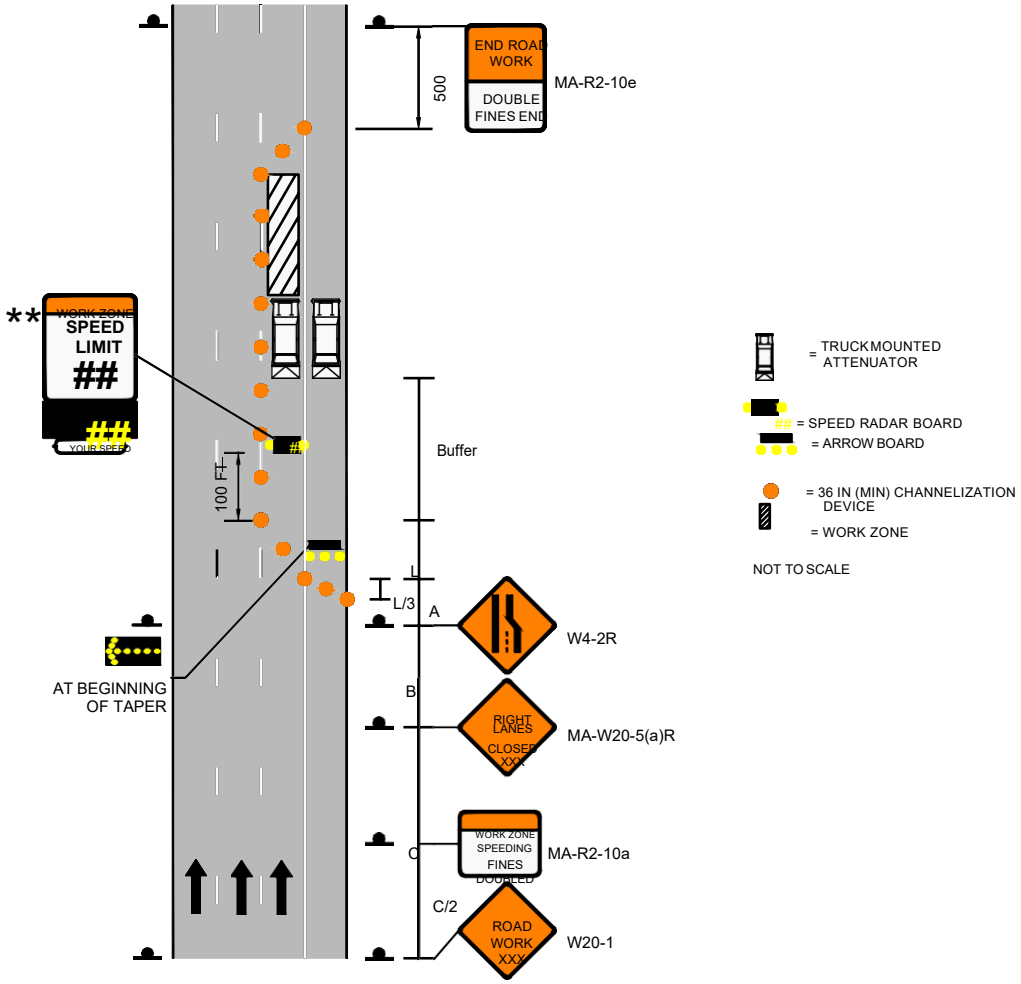
NOTE
1. MA-R2-10a @ C/2

massDOT Massachusetts Department of Transportation Highway Division	Work Zone Safety Standard Details and Drawings	FIGURE 14 STATIONARY OPERATIONS FOUR LANE UNDIVIDED ROADWAY HALF OF ROADWAY CLOSED NOT TO SCALE PAGE 32

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)
25-40	500/500/500
45-55	500/1000/1000
60-65	1000/1600/2600

POSTED SPEED LIMIT (MPH)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)				
	SHOULDER TAPER LENGTH (L/3) (FT)	TRAVEL LANE CLOSURE LENGTH (L) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	110	320	305	20	60
45-55	220	660	495	40	50
60-65	260	780	645	40	55

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.



** OPTIONAL AT ENGINEER'S DISCRETION

NOTE
1. MA-R2-10a @ C/2

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FIGURE 15
STATIONARY OPERATIONS
MULTILANE DIVIDED ROADWAY
SPEED READER BOARD
TYPICAL LOCATIONS
NOT TO SCALE

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)
25-40	500/500/500
45-55	500/1000/1000
60-65	1000/1600/2600

POSTED SPEED LIMIT (MPH)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)				
	SHOULDER TAPER LENGTH (L/3) (FT)	TRAVEL LANE CLOSURE LENGTH (L) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	110	320	305	20	60
45-55	220	660	495	40	50
60-65	260	780	645	40	55

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.

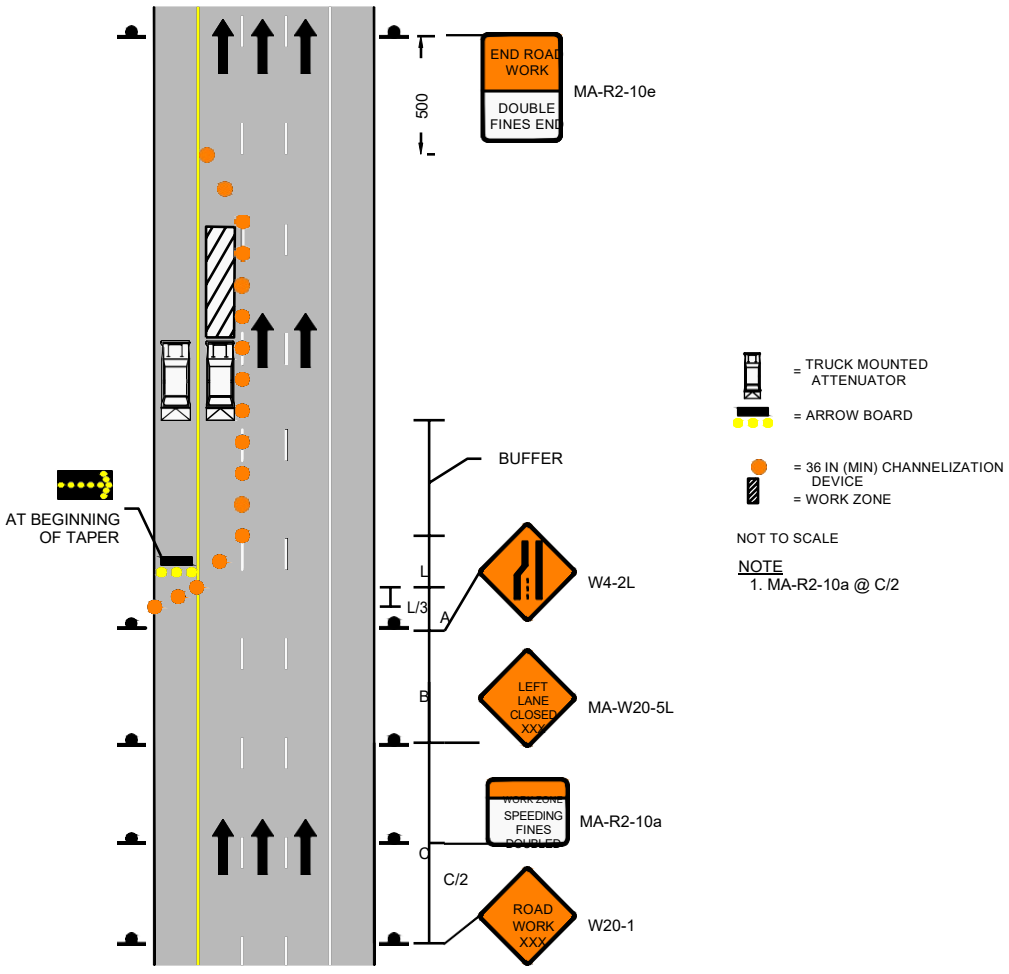

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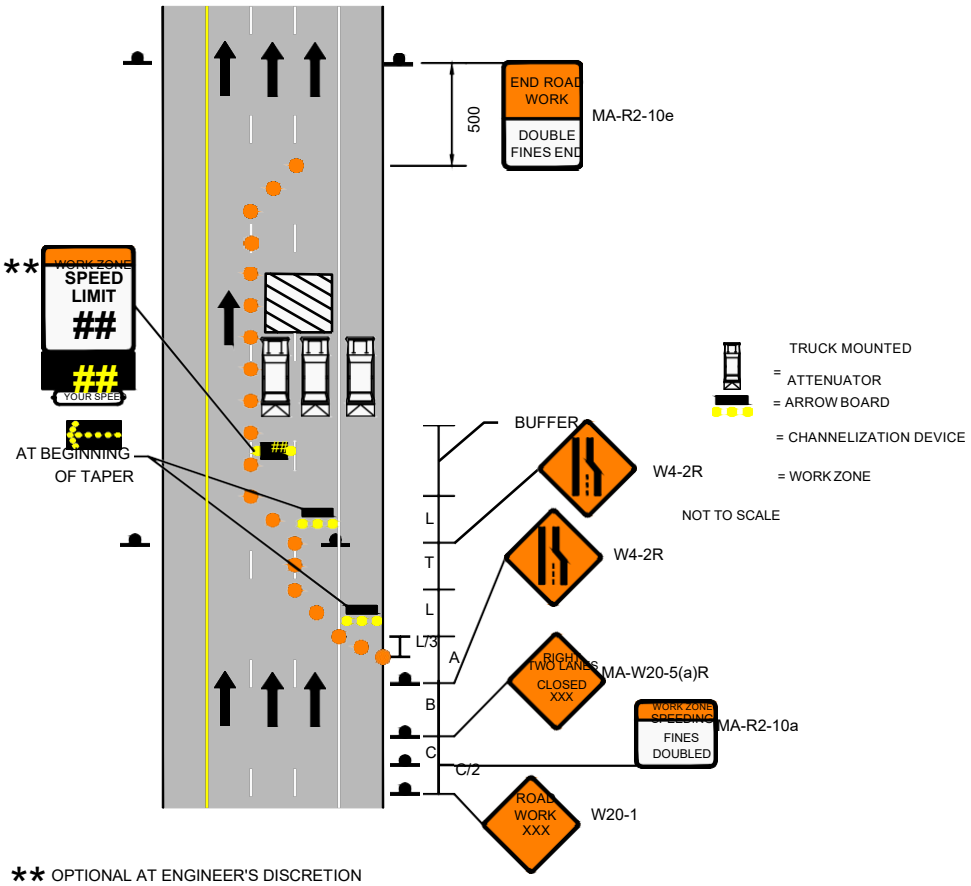
FIGURE 16
STATIONARY OPERATIONS
MULTI-LANE DIVIDED ROADWAY
LEFT LANE CLOSED
NOT TO SCALE

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)
25-40	500/500/500
45-55	500/1000/1000
60-65	1000/1600/2600

POSTED SPEED LIMIT (MPH)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)					
	SHOULDER TAPER LENGTH (L/3) (FT)	TRAVEL LANE CLOSURE LENGTH (L) (FT)	TANGENT LENGTH BETWEEN TAPERS T (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	110	320	640	305	20	110
45-55	220	660	1320	495	40	100
60-65	260	780	1560	645	40	115

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.



** OPTIONAL AT ENGINEER'S DISCRETION

NOTE
1. MA-R2-10a @ C/2

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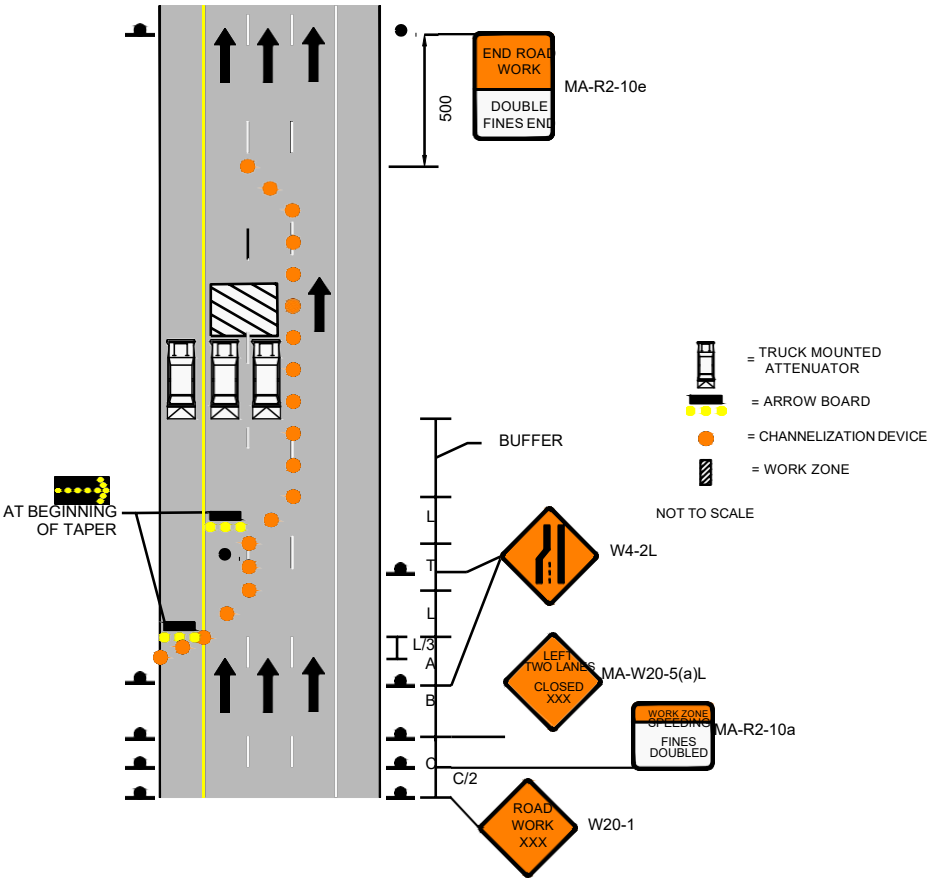
FIGURE 17
STATIONARY OPERATIONS
MULTILANE DIVIDED ROADWAY
CENTER LANE OR RIGHT/CENTER
LANES CLOSED
NOT TO SCALE

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)
25-40	500/500/500
45-55	500/1000/1000
60-65	1000/1600/2600

POSTED SPEED LIMIT (MPH)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)					
	SHOULDER TAPER LENGTH (L/3) (FT)	TRAVEL LANE CLOSURE LENGTH (L) (FT)	TANGENT LENGTH BETWEEN TAPERS T (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	110	320	640	305	20	110
45-55	220	660	1320	495	40	100
60-65	260	780	1560	645	40	115

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.



NOTE
1. MA-R2-10a @ C/2

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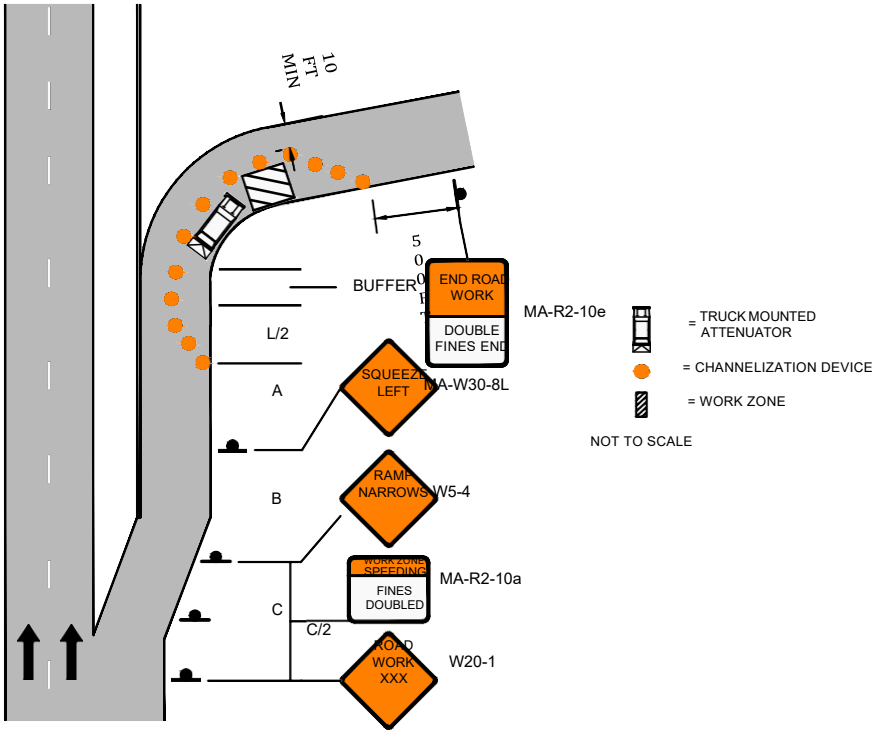
FIGURE 18
STATIONARY OPERATIONS
MULTILANE DIVIDED ROADWAY
CENTER LANE OR LEFT/CENTER LANES
CLOSED
NOT TO SCALE

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)			
		TRAVEL LANE SHIFT LENGTH (L/2) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	500/500/500	160	305	20	45
45-55	500/1000/1000	330	495	40	35

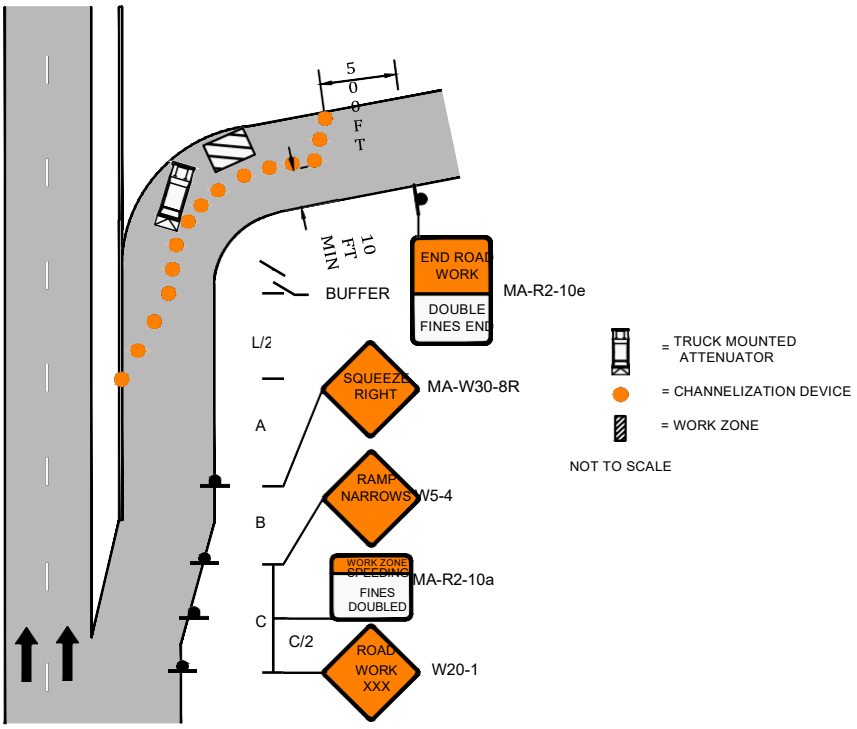
* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.



NOTE
1. MA-R2-10a @ C/2

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)			
		TRAVEL LANE SHIFT LENGTH (L/2) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	500/500/500	160	305	20	45
45-55	500/1000/1000	330	495	40	35

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.



NOTE
1. MA-R2-10a @ C/2

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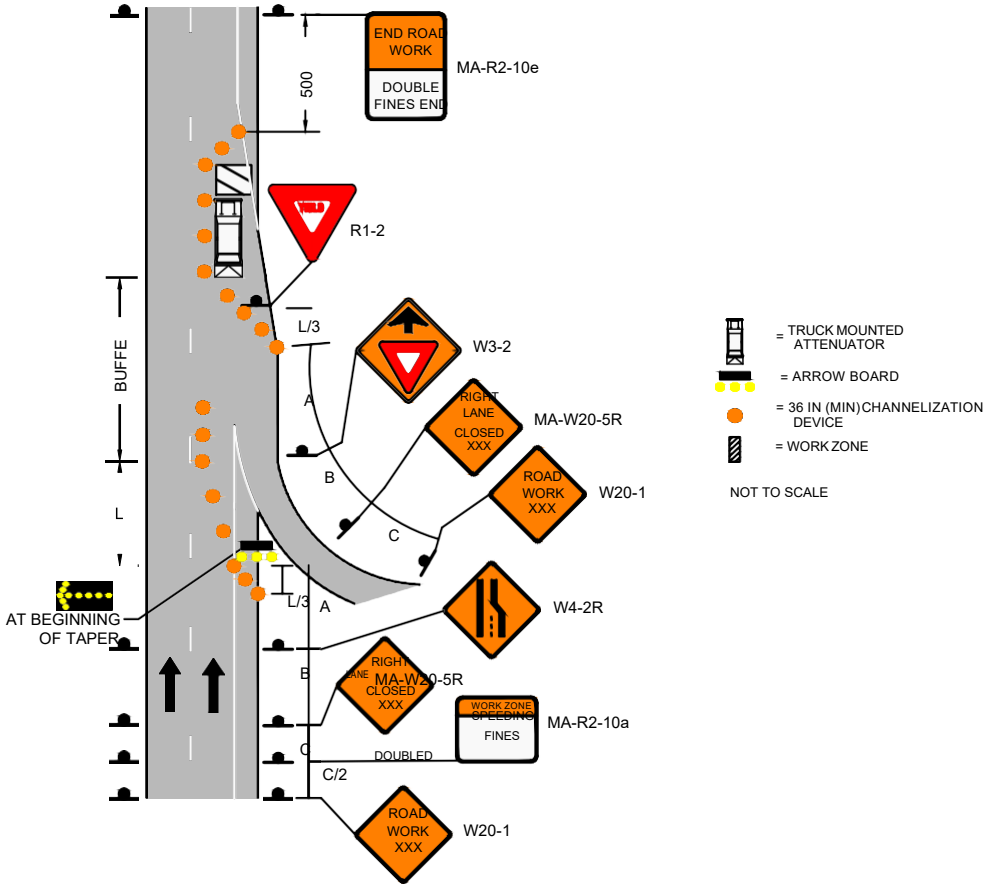
FIGURE 20
STATIONARY OPERATIONS
MULTILANE DIVIDED ROADWAY
LEFT SIDE OF OFF RAMP CLOSED
NOT TO SCALE

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)
25-40	500/500/500
45-55	500/1000/1000
60-65	1000/1600/2600

POSTED SPEED LIMIT (MPH)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)				
	SHOULDER TAPER LENGTH (L/3) (FT)	TRAVEL LANE CLOSURE LENGTH (L) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	110	320	305	20	175
45-55	220	660	495	40	135
60-65	260	780	645	40	155

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.



NOTE
1. MA-R2-10a @ C/2

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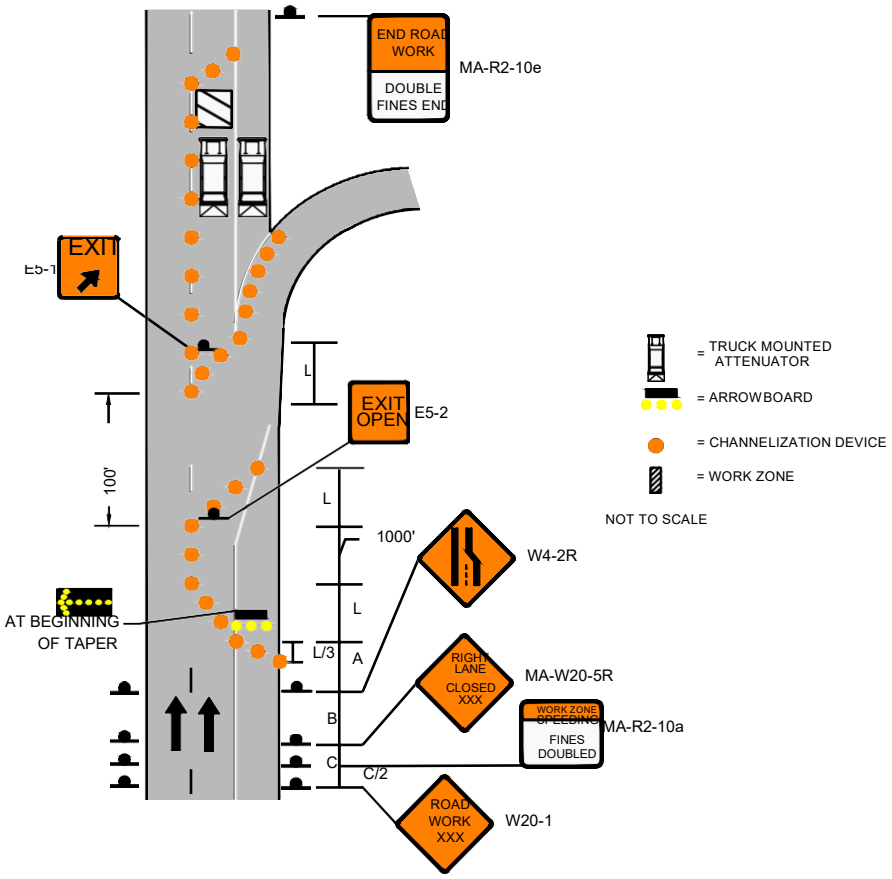
FIGURE 21
STATIONARY OPERATIONS
MULTILANE DIVIDED ROADWAY
ROADWORK BEYOND ON RAMP
NOT TO SCALE

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)
25-40	500/500/500
45-55	500/1000/1000
60-65	1000/1600/2600

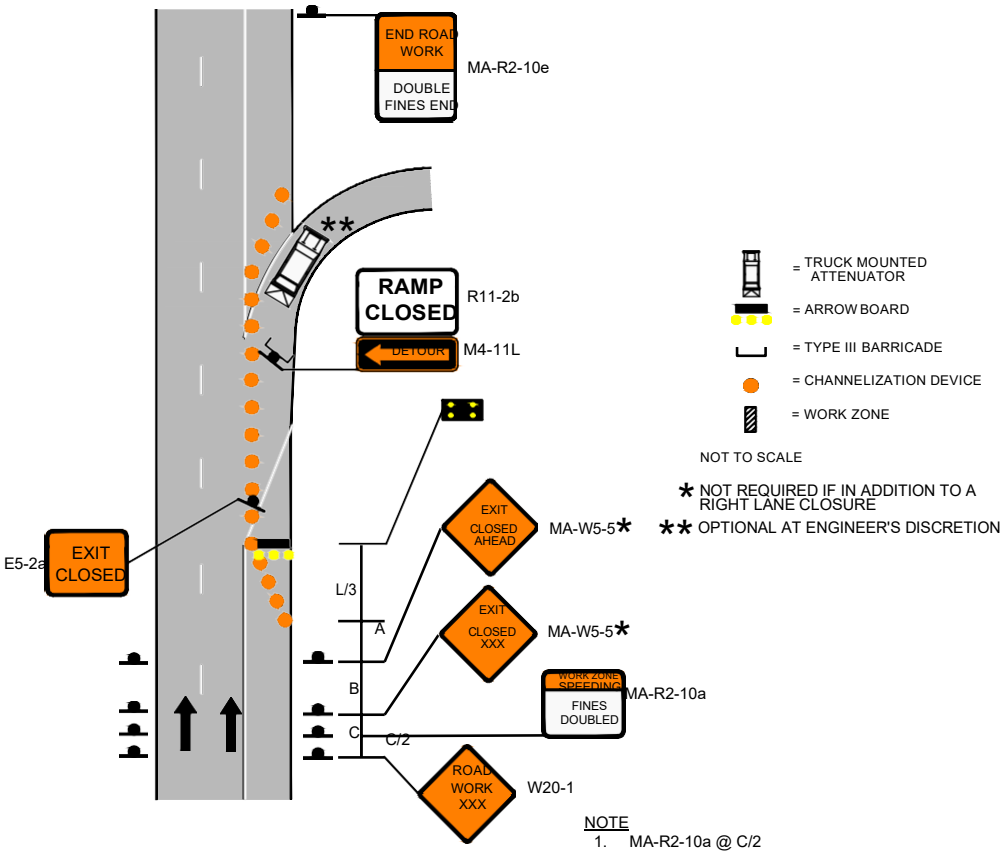
POSTED SPEED LIMIT (MPH)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)					
	SHOULDER TAPER LENGTH (L/3) (FT)	TRAVEL LANE CLOSURE LENGTH (L) (FT)	TRAVEL LANE SHIFT LENGTH (L/2) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	110	320	160	305	20	70
45-55	220	660	330	495	40	55
60-65	260	780	390	645	40	65

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.



NOTE
1. MA-R2-10a @ C/2

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)			
		SHOULDER TAPER LENGTH (L/3) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES
25-40	500/500/500	110	305	20	45
45-55	500/1000/1000	220	495	40	30
60-65	1000/1600/2600	260	645	40	35



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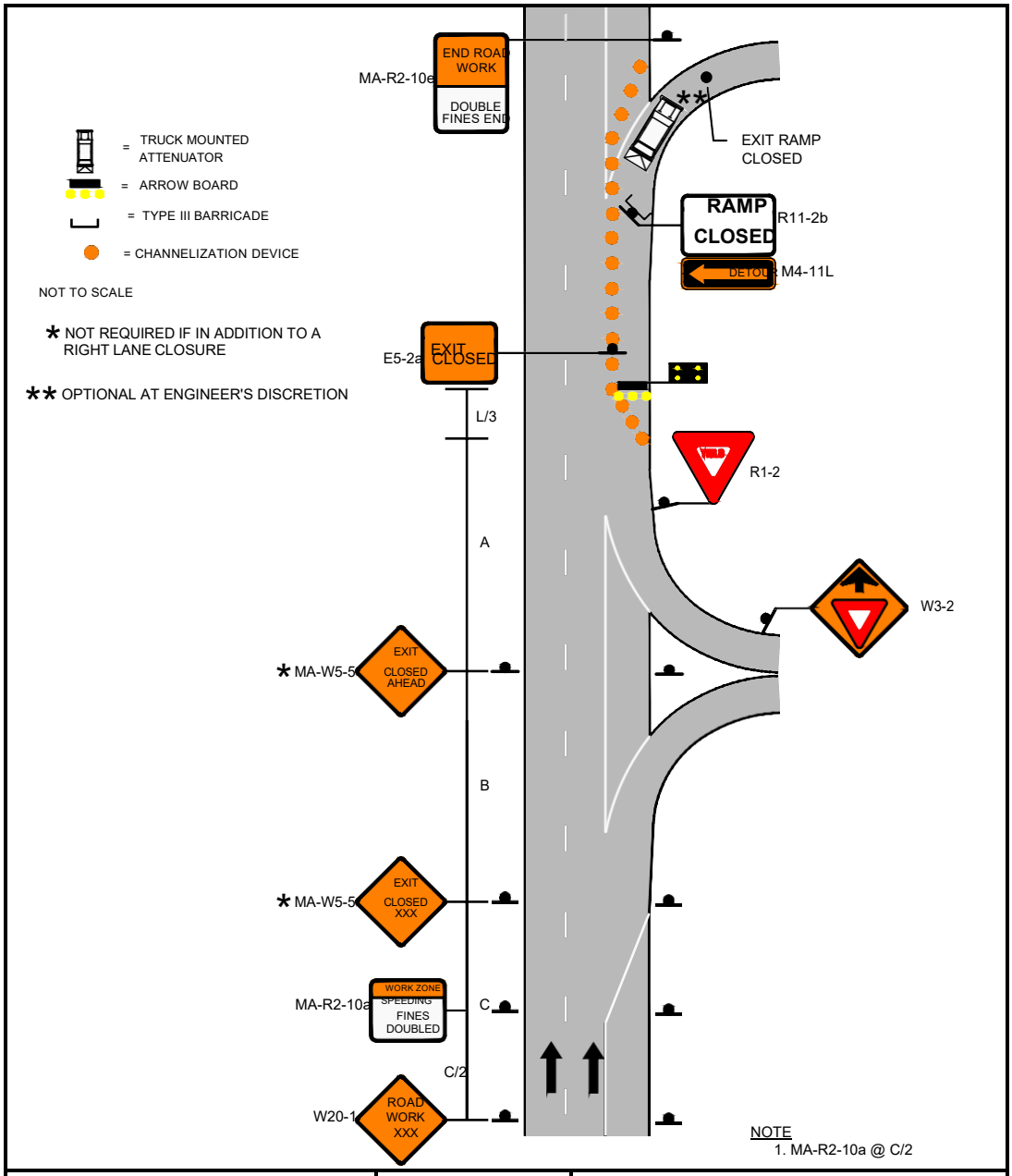
POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)			
		SHOULDER TAPER LENGTH (L/3) (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES
25-40	500/500/500	110	305	20	45
45-55	500/1000/1000	220	495	40	30
60-65	1000/1600/2600	260	645	40	35



massDOT Massachusetts Department of Transportation Highway Division	Work Zone Safety Standard Details and Drawings	FIGURE 24 MULTILANE DIVIDED ROADWAY TYPICAL CLOVERLEAF RAMP CLOSURE NOT TO SCALE PAGE 52

NOTE:

IF THE CLOSED RAMP IS LOCATED DOWNSTREAM FROM THE PROPOSED DETOUR ROUTE/RAMP, THEN A PCMS NEEDS TO BE POSITIONED AT A SUFFICIENT DISTANCE PRIOR TO THE DETOUR ROUTE/RAMP AND SHOULD STATE WHICH RAMP IS CLOSED AND WHICH RAMP TO USE.

IF THE CLOSED RAMP IS LOCATED UPSTREAM FROM THE PROPOSED DETOUR ROUTE/RAMPTHEN A PCMS CAN BE POSITIONED PRIOR TO THE CLOSED RAMP AND SHOULD STATE WHICH RAMP IS CLOSED AND WHICH RAMP TO USE.

A SUFFICIENT NUMBER OF DETOUR SIGNS (M4-9 SERIES) SHOULD BE DEPLOYED TO PROPERLY DIRECT DETOURED TRAFFIC. SIGN SPACING AT THE DIRECTION OF THE ENGINEER.

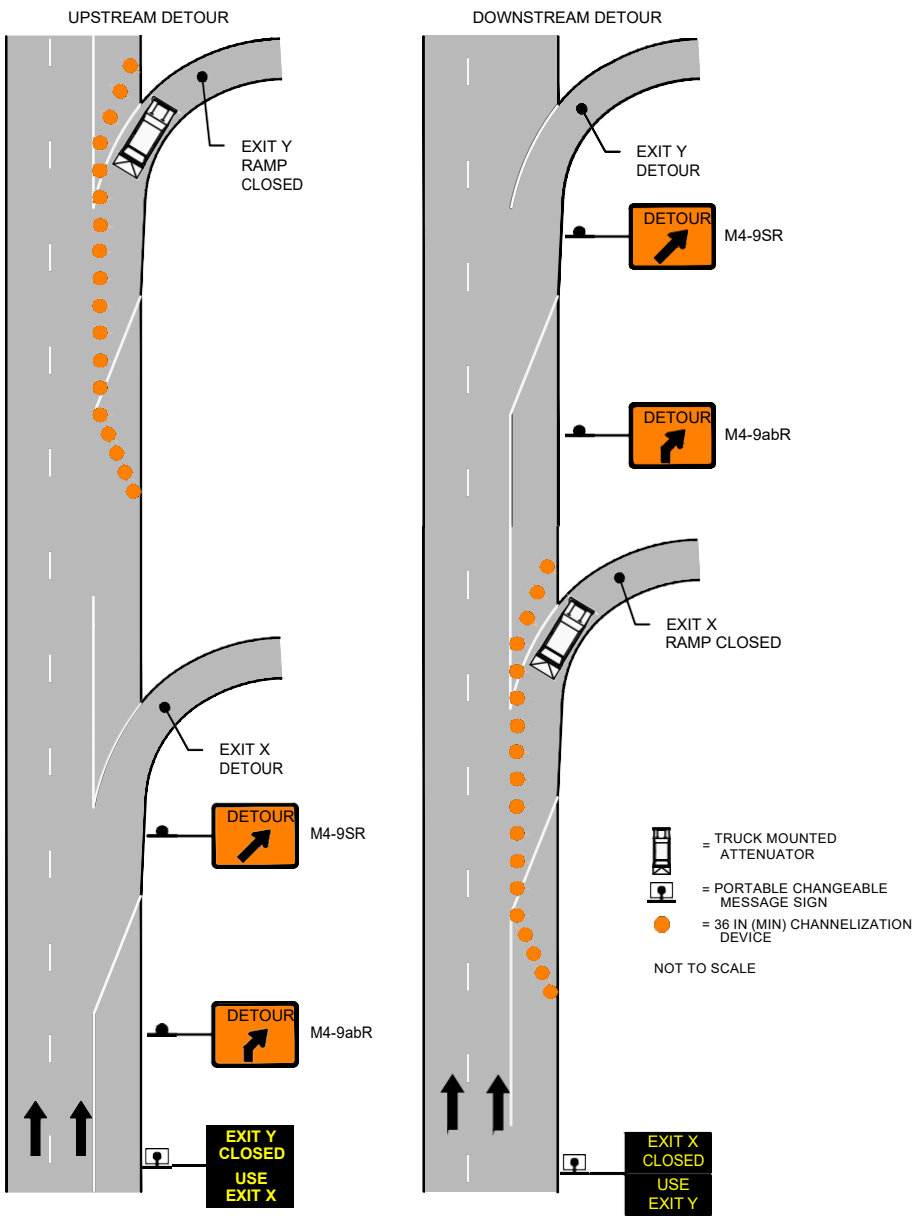


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FIGURE 25
MULTILANE DIVIDED ROADWAY
TYPICAL CLOVERLEAF RAMP CLOSURE
ADVANCE SIGNING
NOT TO SCALE

POSTED REGULATORY OR WORK ZONE SPEED	SEPARATION BETWEEN RUMBLE STRIPS
Above 55-mph	20-feet
36-mph to 55-mph	15-feet
35-mph and under	10-feet

POSTED SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (FT) (A,B,C)
25-40	500/500/500
45-55	500/1000/1000
60-65	1000/1600/2600

POSTED SPEED LIMIT (MPH)	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)					
	SHOULDER TAPER LENGTH (L/3) (FT)	TRAVEL LANE CLOSURE LENGTH (L) (FT)	TANGENT LENGTH BETWEEN TAPERS T (FT)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	110	320	640	305	20	110
45-55	220	660	1320	495	40	100
60-65	260	780	1560	645	40	115

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.

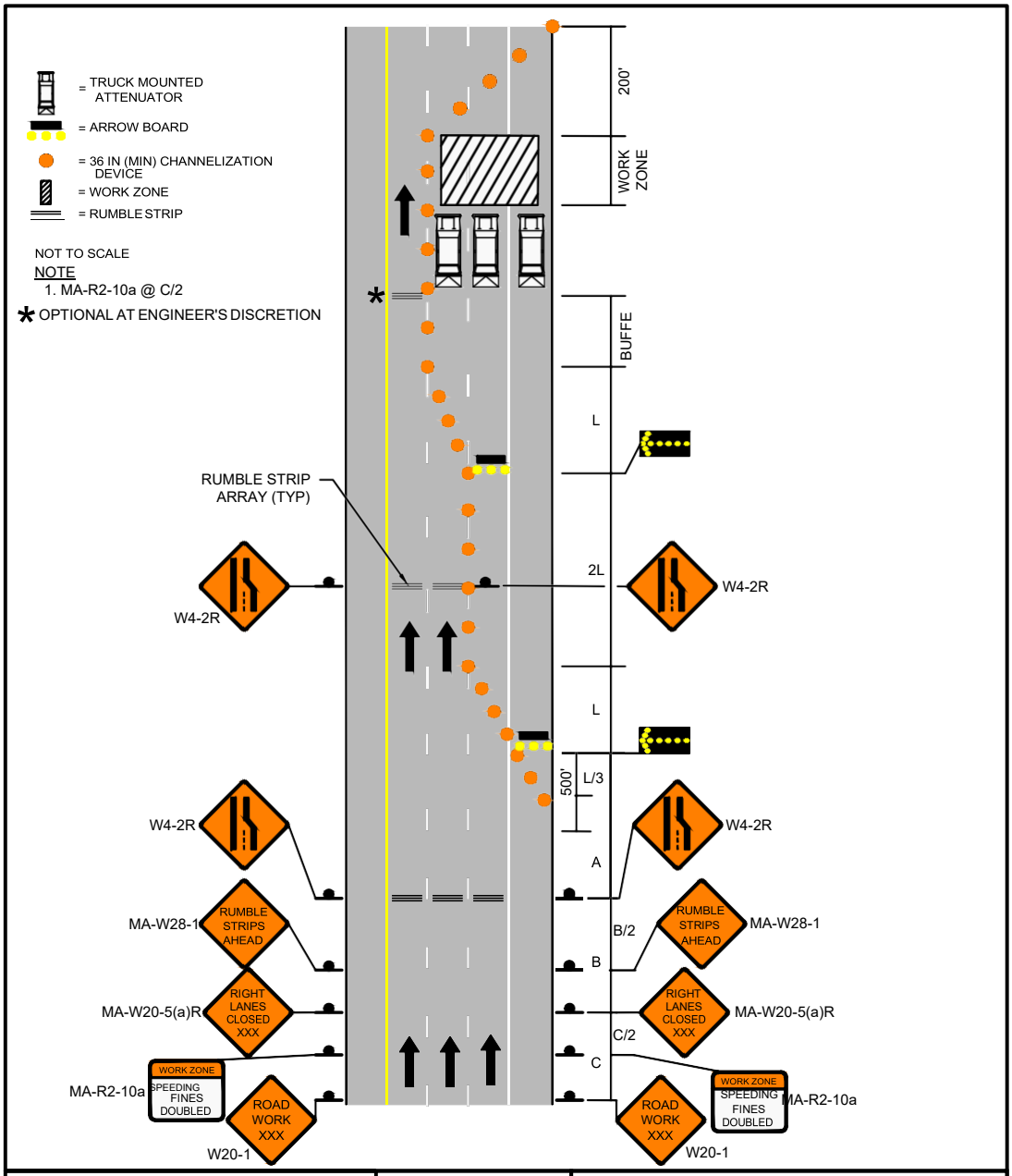

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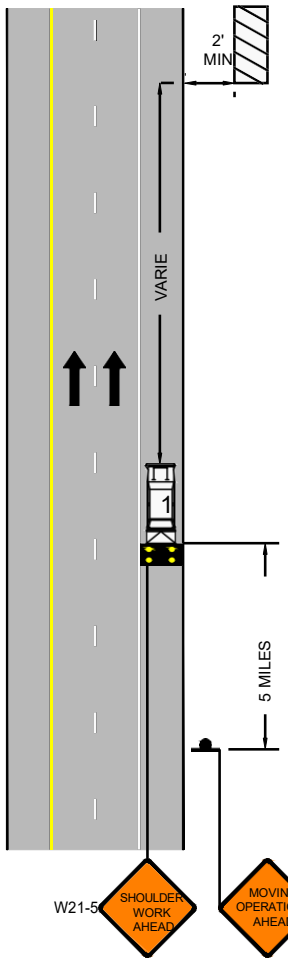
FIGURE 26
MULTILANE DIVIDED ROADWAY
PLACEMENT OF TEMPORARY RUMBLE STRIPS
NOT TO SCALE

FIGURE 27
MOBILE OPERATIONS
ANY ROADWAY
BEYOND RIGHT SHOULDER
NOT TO SCALE



1. THE SUPERVISOR SHALL TRAVEL THE DESIGNATED ROADWAY PRIOR TO SCHEDULING THE WORK TO ENSURE THAT SUFFICIENT AND APPROPRIATE TRAFFIC CONTROL DEVICES WILL BE AVAILABLE. SPECIAL CONSIDERATION SHALL BE EXERCISED TO ENSURE THAT APPROPRIATE TRAFFIC CONTROLS BE PLACED IN AREAS THAT WILL HAVE LIMITED VISIBILITY OF THE WORK AREAS OR THE RELATED TRAFFIC BACKUP.

2. VEHICLES USED FOR THESE OPERATIONS SHALL BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, FLASHING ARROW BOARDS, OR PORTABLE CHANGEABLE MESSAGE SIGNS. ANY SIGNS MOUNTED ON THESE VEHICLES SHALL NOT OBSCURE THE VISIBILITY OF THE OTHER DEVICES.

3. ALL VEHICLES SHOWN MAY NOT BE REQUIRED BASED ON ROADWAY CONDITIONS, HOWEVER WHEN NEEDED AND PRACTICAL, ADDITIONAL SHADOW VEHICLES AND EQUIPMENT TO WARN AND PROTECT MOTORISTS AND WORKERS SHOULD BE USED. BASED ON ROADWAY CONDITIONS THE ADDITION OF A POLICE DETAIL WITH CRUISER MAY BE USED IN THE PROTECTION/WARNING OF/FOR THE TRAVELING PUBLIC.

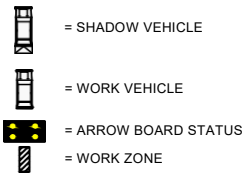
4. THE DISTANCE BETWEEN THE WORK AND SHADOW VEHICLE(S) MAY VARY ACCORDING TO TERRAIN AND OTHER FACTORS. SHADOW VEHICLE(S) IS/ARE USED TO WARN TRAFFIC OF THE OPERATIONS AHEAD. WHENEVER ADEQUATE SIGHT DISTANCE EXISTS, THE SHADOW VEHICLE(S) SHOULD MAINTAIN THE MINIMUM APPROPRIATE DISTANCE TO PREVENT NON-WORK RELATED VEHICLES FROM ENTERING THE WORK "CONVOY", AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. IF THIS FORMATION CAN NOT BE MAINTAINED THEN ADDITIONAL TRAFFIC DEVICES SHOULD BE DEPLOYED IN ADVANCE OF ANY VERTICAL OR HORIZONTAL CURVES WHICH RESTRICT THE SIGHT DISTANCE OF ONCOMING VEHICLES TO EITHER THE WORK VEHICLES OR THE POTENTIAL BACKUP.

5. ALL SHADOW VEHICLES SHOULD BE EQUIPPED WITH AN IMPACT ATTENUATOR AND A FLASHING ARROW BOARD.

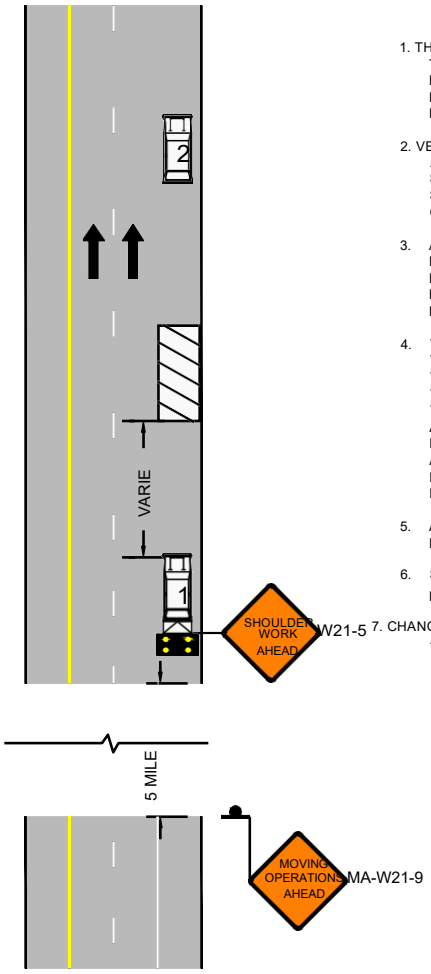
6. SIGNS SHOULD BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

7. CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE MA-W21-9 SIGN AS WELL AS THOSE SIGNS MOUNTED ON THE SHADOW VEHICLE(S).

8. IF THE AREA IS SUFFICIENTLY AWAY FROM THE EDGE OF ROADWAY(20' MINIMUM) THEN SIGNS AND VEHICLES MAY NOT BE REQUIRED.



NOT TO SCALE



1. THE SUPERVISOR SHALL TRAVEL THE DESIGNATED ROADWAY PRIOR TO SCHEDULING THE WORK TO ENSURE THAT SUFFICIENT AND APPROPRIATE TRAFFIC CONTROL DEVICES WILL BE AVAILABLE. SPECIAL CONSIDERATION SHALL BE EXERCISED TO ENSURE THAT APPROPRIATE TRAFFIC CONTROLS BE PLACED IN AREAS THAT WILL HAVE LIMITED VISIBILITY OF THE WORK AREAS OR THE RELATED TRAFFIC BACKUP.

2. VEHICLES USED FOR THESE OPERATIONS SHALL BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, FLASHING ARROW BOARDS, OR PORTABLE CHANGEABLE MESSAGE SIGNS. ANY SIGNS MOUNTED ON THESE VEHICLES SHALL NOT OBSCURE THE VISIBILITY OF THE OTHER DEVICES.

3. ALL VEHICLES SHOWN MAY NOT BE REQUIRED BASED ON ROADWAY CONDITIONS, HOWEVER WHEN NEEDED AND PRACTICAL, ADDITIONAL SHADOW VEHICLES AND EQUIPMENT TO WARN AND PROTECT MOTORISTS AND WORKERS SHOULD BE USED. BASED ON ROADWAY CONDITIONS THE ADDITION OF A POLICE DETAIL WITH CRUISER MAY BE USED IN THE PROTECTION/WARNING OF/FOR THE TRAVELING PUBLIC.

4. THE DISTANCE BETWEEN THE WORK AND SHADOW VEHICLE(S) MAY VARY ACCORDING TO TERRAIN AND OTHER FACTORS. SHADOW VEHICLE(S) IS/ARE USED TO WARN TRAFFIC OF THE OPERATIONS AHEAD. WHENEVER ADEQUATE SIGHT DISTANCE EXISTS, THE SHADOW VEHICLE(S) SHOULD MAINTAIN THE MINIMUM APPROPRIATE DISTANCE TO PREVENT NON-WORK RELATED VEHICLES FROM ENTERING THE WORK "CONVOY", AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. IF THIS FORMATION CAN NOT BE MAINTAINED THEN ADDITIONAL TRAFFIC DEVICES SHOULD BE DEPLOYED IN ADVANCE OF ANY VERTICAL OR HORIZONTAL CURVES WHICH RESTRICT THE SIGHT DISTANCE OF ONCOMING VEHICLES TO EITHER THE WORK VEHICLES OR THE POTENTIAL BACKUP.

5. ALL SHADOW VEHICLES SHOULD BE EQUIPPED WITH AN IMPACT ATTENUATOR AND A FLASHING ARROW BOARD.

6. SIGNS SHOULD BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

7. CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE MA-W21-9 SIGN AS WELL AS THOSE SIGNS MOUNTED ON THE SHADOW VEHICLE(S).

= SHADOW VEHICLE

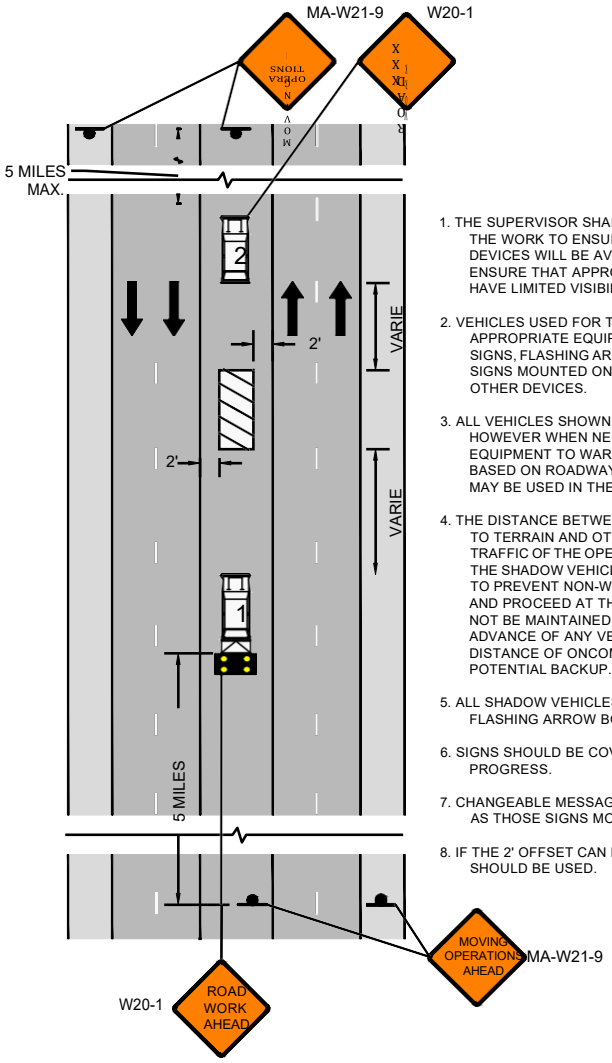
= WORK VEHICLE

= ARROW BOARD STATUS

= WORK ZONE

NOT TO SCALE

FIGURE 29
MOBILE OPERATIONS
DIVIDED ROADWAY
MEDIAN WORK



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2. VEHICLES USED FOR THESE OPERATIONS SHALL BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, FLASHING ARROW BOARDS, OR PORTABLE CHANGEABLE MESSAGE SIGNS. ANY SIGNS MOUNTED ON THESE VEHICLES SHALL NOT OBSCURE THE VISIBILITY OF THE OTHER DEVICES.

3. ALL VEHICLES SHOWN MAY NOT BE REQUIRED BASED ON ROADWAY CONDITIONS, HOWEVER WHEN NEEDED AND PRACTICAL, ADDITIONAL SHADOW VEHICLES AND EQUIPMENT TO WARN AND PROTECT MOTORISTS AND WORKERS SHOULD BE USED. BASED ON ROADWAY CONDITIONS THE ADDITION OF A POLICE DETAIL WITH CRUISER MAY BE USED IN THE PROTECTION/WARNING OF/FOR THE TRAVELING PUBLIC.

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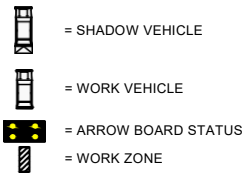
5. ALL SHADOW VEHICLES SHOULD BE EQUIPPED WITH AN IMPACT ATTENUATOR AND A FLASHING ARROW BOARD.

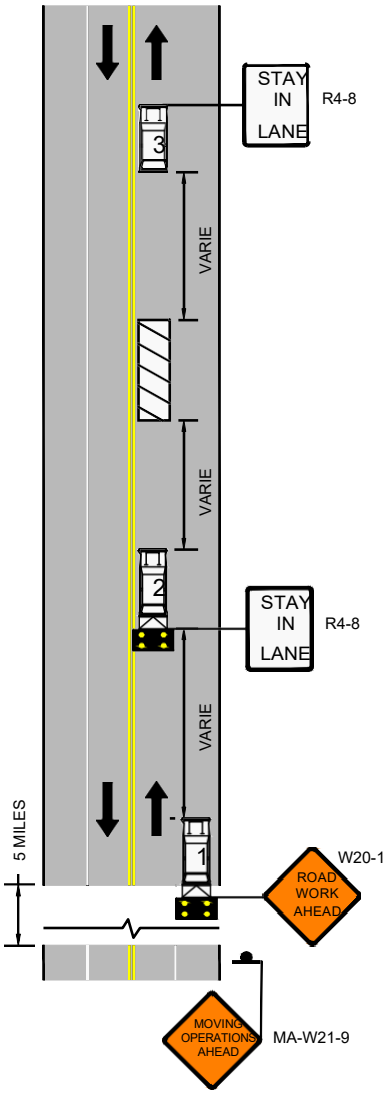
6. SIGNS SHOULD BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

7. CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE MA-W21-9 SIGN AS WELL AS THOSE SIGNS MOUNTED ON THE SHADOW VEHICLE(S).

8. IF THE 2' OFFSET CAN NOT BE MAINTAINED A MOBILE/SHORT TERM STATIONARY SETUP SHOULD BE USED.



NOT TO SCALE



1. THE SUPERVISOR SHALL TRAVEL THE DESIGNATED ROADWAY PRIOR TO SCHEDULING THE WORK TO ENSURE THAT SUFFICIENT AND APPROPRIATE TRAFFIC CONTROL DEVICES WILL BE AVAILABLE. SPECIAL CONSIDERATION SHALL BE EXERCISED TO ENSURE THAT APPROPRIATE TRAFFIC CONTROLS BE PLACED IN AREAS THAT WILL HAVE LIMITED VISIBILITY OF THE WORK AREAS OR THE RELATED TRAFFIC BACKUP.

2. VEHICLES USED FOR THESE OPERATIONS SHALL BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, FLASHING ARROW BOARDS, OR PORTABLE CHANGEABLE MESSAGE SIGNS. ANY SIGNS MOUNTED ON THESE VEHICLES SHALL NOT OBSCURE THE VISIBILITY OF THE OTHER DEVICES.

3. ALL VEHICLES SHOWN MAY NOT BE REQUIRED BASED ON ROADWAY CONDITIONS, HOWEVER WHEN NEEDED AND PRACTICAL, ADDITIONAL SHADOW VEHICLES AND EQUIPMENT TO WARN AND PROTECT MOTORISTS AND WORKERS SHOULD BE USED. BASED ON ROADWAY CONDITIONS THE ADDITION OF A POLICE DETAIL WITH CRUISER MAY BE USED IN THE PROTECTION/WARNING OF/FOR THE TRAVELING PUBLIC.

4. THE DISTANCE BETWEEN THE WORK AND SHADOW VEHICLE(S) MAY VARY ACCORDING TO TERRAIN AND OTHER FACTORS. SHADOW VEHICLE(S) IS/ARE USED TO WARN TRAFFIC OF THE OPERATIONS AHEAD. WHENEVER ADEQUATE SIGHT DISTANCE EXISTS, THE SHADOW VEHICLE(S) SHOULD MAINTAIN THE MINIMUM APPROPRIATE DISTANCE TO PREVENT NON-WORK RELATED VEHICLES FROM ENTERING THE WORK "CONVOY", AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. IF THIS FORMATION CAN NOT BE MAINTAINED THEN ADDITIONAL TRAFFIC DEVICES SHOULD BE DEPLOYED IN ADVANCE OF ANY VERTICAL OR HORIZONTAL CURVES WHICH RESTRICT THE SIGHT DISTANCE OF ONCOMING VEHICLES TO EITHER THE WORK VEHICLES OR THE POTENTIAL BACKUP.

5. ALL SHADOW VEHICLES SHOULD BE EQUIPPED WITH AN IMPACT ATTENUATOR AND A FLASHING ARROW BOARD.

6. SIGNS SHOULD BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

7. CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE MA-W21-9 SIGN AS WELL AS THOSE SIGNS MOUNTED ON THE SHADOW VEHICLE(S).

8. WHERE PRACTICAL AND WHEN NEEDED, THE WORK AND SHADOW VEHICLE(S) SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS. IF THIS CAN NOT BE DONE FREQUENTLY, THEN AS AN ALTERNATIVE, DEPLOY FIGURE 9.

9. WHERE A WIDE SHOULDER EXISTS, SHADOW VEHICLE #1 SHOULD DRIVE ON THE SHOULDER.

= SHADOW VEHICLE

= WORK VEHICLE

= ARROW BOARD STATUS

= WORK ZONE

NOT TO SCALE

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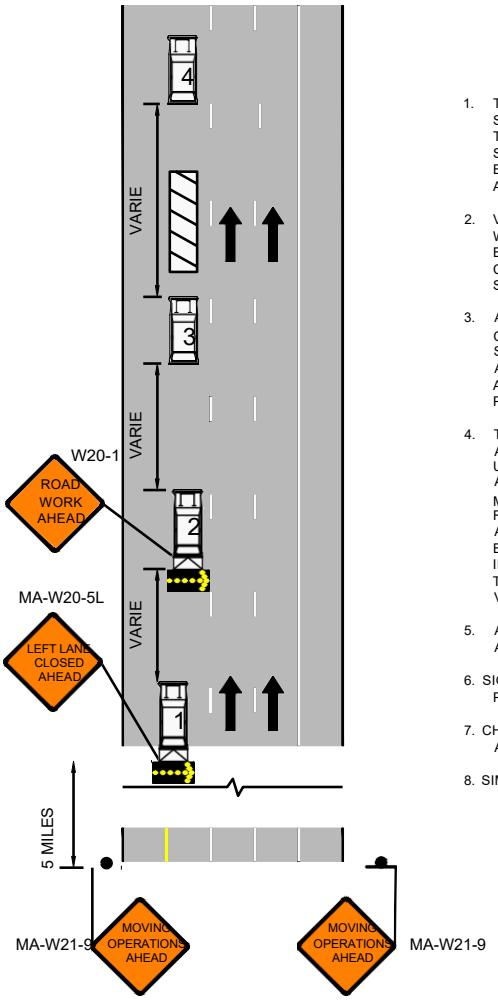
FIGURE 30
MOBILE OPERATIONS
UNDIVIDED TWO LANE ROADWAY
HALF OF ROADWAY CLOSED
NOT TO SCALE

FIGURE 31
MOBILE OPERATIONS
MULTILANE DIVIDED ROADWAY
LEFT TRAVEL LANE
NOT TO SCALE



1. THE SUPERVISOR SHALL TRAVEL THE DESIGNATED ROADWAY PRIOR TO SCHEDULING THE WORK TO ENSURE THAT SUFFICIENT AND APPROPRIATE TRAFFIC CONTROL DEVICES WILL BE AVAILABLE. SPECIAL CONSIDERATION SHALL BE EXERCISED TO ENSURE THAT APPROPRIATE TRAFFIC CONTROLS BE PLACED IN AREAS THAT WILL HAVE LIMITED VISIBILITY OF THE WORK AREAS OR THE RELATED TRAFFIC BACKUP.

2. VEHICLES USED FOR THESE OPERATIONS SHALL BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, FLASHING ARROW BOARDS, OR PORTABLE CHANGEABLE MESSAGE SIGNS. ANY SIGNS MOUNTED ON THESE VEHICLES SHALL NOT OBSCURE THE VISIBILITY OF THE OTHER DEVICES.

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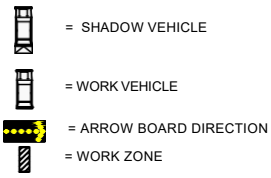
4. THE DISTANCE BETWEEN THE WORK AND SHADOW VEHICLE(S) MAY VARY ACCORDING TO TERRAIN AND OTHER FACTORS. SHADOW VEHICLE(S) IS/ARE USED TO WARN TRAFFIC OF THE OPERATIONS AHEAD. WHENEVER ADEQUATE SIGHT DISTANCE EXISTS, THE SHADOW VEHICLE(S) SHOULD MAINTAIN THE MINIMUM APPROPRIATE DISTANCE TO PREVENT NON-WORK RELATED VEHICLES FROM ENTERING THE WORK "CONVOY", AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. IF THIS FORMATION CAN NOT BE MAINTAINED THEN ADDITIONAL TRAFFIC DEVICES SHOULD BE DEPLOYED IN ADVANCE OF ANY VERTICAL OR HORIZONTAL CURVES WHICH RESTRICT THE SIGHT DISTANCE OF ONCOMING VEHICLES TO EITHER THE WORK VEHICLES OR THE POTENTIAL BACKUP.

5. ALL SHADOW VEHICLES SHOULD BE EQUIPPED WITH AN IMPACT ATTENUATOR AND A FLASHING ARROW BOARD.

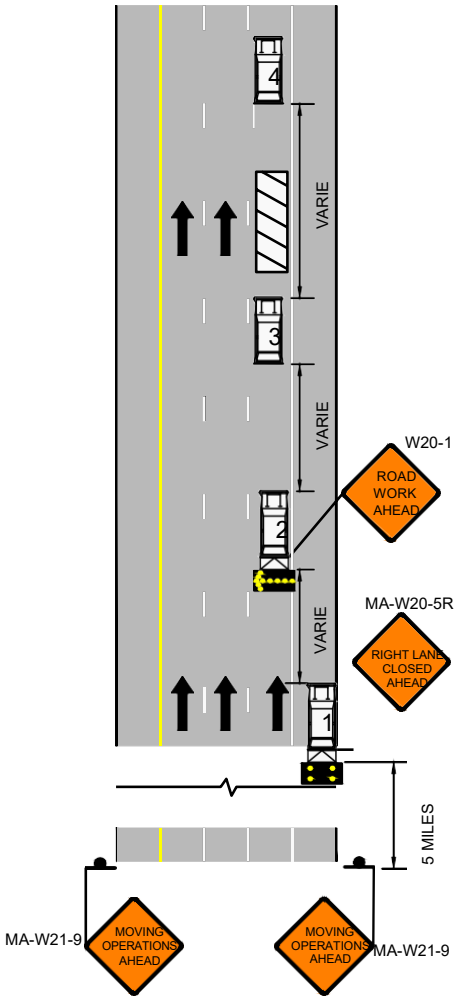
6. SIGNS SHOULD BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

7. CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE MA-W21-9 SIGN AS WELL AS THOSE SIGNS MOUNTED ON THE SHADOW VEHICLE(S).

8. SIMILAR SETUP MAY BE USED FOR A MULTILANE UNDIVIDED ROADWAY.



NOT TO SCALE



1. THE SUPERVISOR SHALL TRAVEL THE DESIGNATED ROADWAY PRIOR TO SCHEDULING THE WORK TO ENSURE THAT SUFFICIENT AND APPROPRIATE TRAFFIC CONTROL DEVICES WILL BE AVAILABLE. SPECIAL CONSIDERATION SHALL BE EXERCISED TO ENSURE THAT APPROPRIATE TRAFFIC CONTROLS BE PLACED IN AREAS THAT WILL HAVE LIMITED VISIBILITY OF THE WORK AREAS OR THE RELATED TRAFFIC BACKUP.
2. VEHICLES USED FOR THESE OPERATIONS SHALL BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, FLASHING ARROW BOARDS, OR PORTABLE CHANGEABLE MESSAGE SIGNS. ANY SIGNS MOUNTED ON THESE VEHICLES SHALL NOT OBSCURE THE VISIBILITY OF THE OTHER DEVICES.
3. ALL VEHICLES SHOWN MAY NOT BE REQUIRED BASED ON ROADWAY CONDITIONS, HOWEVER WHEN NEEDED AND PRACTICAL, ADDITIONAL SHADOW VEHICLES AND EQUIPMENT TO WARN AND PROTECT MOTORISTS AND WORKERS SHOULD BE USED. BASED ON ROADWAY CONDITIONS THE ADDITION OF A POLICE DETAIL WITH CRUISER MAY BE USED IN THE PROTECTION/WARNING OF/FOR THE TRAVELING PUBLIC.
4. THE DISTANCE BETWEEN THE WORK AND SHADOW VEHICLE(S) MAY VARY ACCORDING TO TERRAIN AND OTHER FACTORS. SHADOW VEHICLE(S) IS/ARE USED TO WARN TRAFFIC OF THE OPERATIONS AHEAD. WHENEVER ADEQUATE SIGHT DISTANCE EXISTS, THE SHADOW VEHICLE(S) SHOULD MAINTAIN THE MINIMUM APPROPRIATE DISTANCE TO PREVENT NON-WORK RELATED VEHICLES FROM ENTERING THE WORK "CONVOY", AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. IF THIS FORMATION CAN NOT BE MAINTAINED THEN ADDITIONAL TRAFFIC DEVICES SHOULD BE DEPLOYED IN ADVANCE OF ANY VERTICAL OR HORIZONTAL CURVES WHICH RESTRICT THE SIGHT DISTANCE OF ONCOMING VEHICLES TO EITHER THE WORK VEHICLES OR THE POTENTIAL BACKUP.
5. ALL SHADOW VEHICLES SHOULD BE EQUIPPED WITH AN IMPACT ATTENUATOR AND A FLASHING ARROW BOARD.
6. SIGNS SHOULD BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
7. CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE MA-W21-9 SIGN AS WELL AS THOSE SIGNS MOUNTED ON THE SHADOW VEHICLE(S).
8. SIMILAR SETUP MAY BE USED FOR A MULTILANE UNDIVIDED ROADWAY.

= SHADOW VEHICLE

= WORK VEHICLE

= ARROW BOARD DIRECTION

= WORK ZONE

NOT TO SCALE

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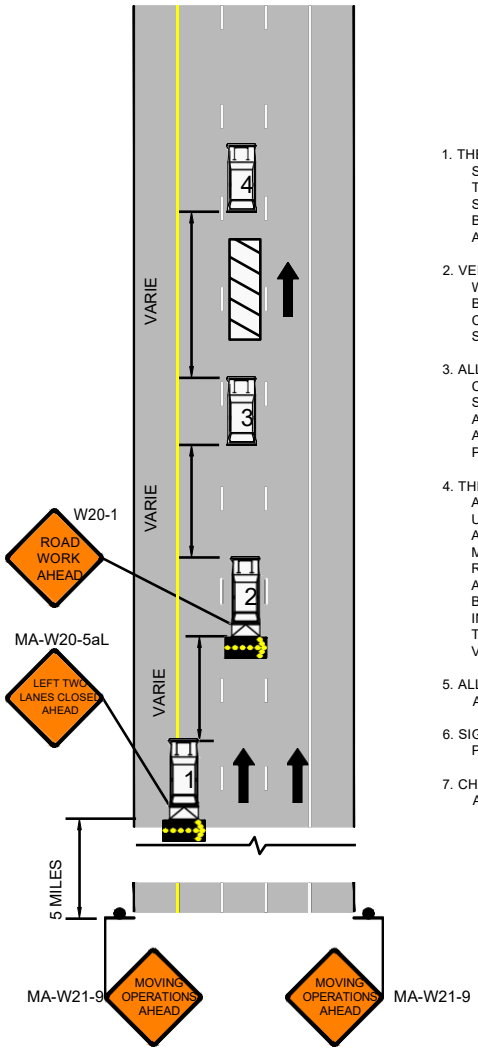
FIGURE 32
MOBILE OPERATIONS
MULTILANE DIVIDED ROADWAY
RIGHT TRAVEL LANE
NOT TO SCALE

FIGURE 33
MOBILE OPERATIONS
MULTILANE DIVIDED ROADWAY
CENTER TRAVEL LANE
NOT TO SCALE



1. THE SUPERVISOR SHALL TRAVEL THE DESIGNATED ROADWAY PRIOR TO SCHEDULING THE WORK TO ENSURE THAT SUFFICIENT AND APPROPRIATE TRAFFIC CONTROL DEVICES WILL BE AVAILABLE. SPECIAL CONSIDERATION SHALL BE EXERCISED TO ENSURE THAT APPROPRIATE TRAFFIC CONTROLS BE PLACED IN AREAS THAT WILL HAVE LIMITED VISIBILITY OF THE WORK AREAS OR THE RELATED TRAFFIC BACKUP.

2. VEHICLES USED FOR THESE OPERATIONS SHALL BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, FLASHING ARROW BOARDS, OR PORTABLE CHANGEABLE MESSAGE SIGNS. ANY SIGNS MOUNTED ON THESE VEHICLES SHALL NOT OBSCURE THE VISIBILITY OF THE OTHER DEVICES.

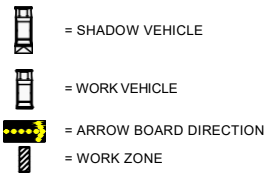
3. ALL VEHICLES SHOWN MAY NOT BE REQUIRED BASED ON ROADWAY CONDITIONS, HOWEVER WHEN NEEDED AND PRACTICAL, ADDITIONAL SHADOW VEHICLES AND EQUIPMENT TO WARN AND PROTECT MOTORISTS AND WORKERS SHOULD BE USED. BASED ON ROADWAY CONDITIONS THE ADDITION OF A POLICE DETAIL WITH CRUISER MAY BE USED IN THE PROTECTION/WARNING OF/FOR THE TRAVELING PUBLIC.

4. THE DISTANCE BETWEEN THE WORK AND SHADOW VEHICLE(S) MAY VARY ACCORDING TO TERRAIN AND OTHER FACTORS. SHADOW VEHICLE(S) IS/ARE USED TO WARN TRAFFIC OF THE OPERATIONS AHEAD. WHENEVER ADEQUATE SIGHT DISTANCE EXISTS, THE SHADOW VEHICLE(S) SHOULD MAINTAIN THE MINIMUM APPROPRIATE DISTANCE TO PREVENT NON-WORK RELATED VEHICLES FROM ENTERING THE WORK "CONVOY", AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. IF THIS FORMATION CAN NOT BE MAINTAINED THEN ADDITIONAL TRAFFIC DEVICES SHOULD BE DEPLOYED IN ADVANCE OF ANY VERTICAL OR HORIZONTAL CURVES WHICH RESTRICT THE SIGHT DISTANCE OF ONCOMING VEHICLES TO EITHER THE WORK VEHICLES OR THE POTENTIAL BACKUP.

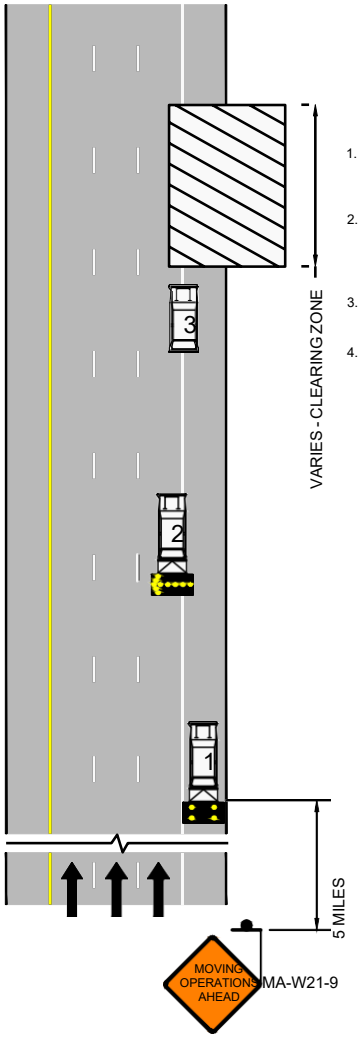
5. ALL SHADOW VEHICLES SHOULD BE EQUIPPED WITH AN IMPACT ATTENUATOR AND A FLASHING ARROW BOARD.

6. SIGNS SHOULD BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

7. CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE MA-W21-9 SIGN AS WELL AS THOSE SIGNS MOUNTED ON THE SHADOW VEHICLE(S).



NOT TO SCALE



1. VEHICLE #3 IS THE SNOW REMOVAL VEHICLE. VEHICLE #3 NEEDS TO BE AWARE OF THE SURROUNDINGS. MORE THAN ONE VEHICLE COULD BE LOCATED WITHIN THE CLEARING ZONE.
2. VEHICLE #1 SHOULD BE EQUIPPED WITH A MESSAGE SIGN AND IMPACT ATTENUATOR. VEHICLE #2 SHOULD BE EQUIPPED WITH AN ARROW BOARD, AND IMPACT ATTENUATOR, AND STAY IN VISUAL CONTACT WITH VEHICLE #3 WHILE SUPPLYING AMPLE WARNING TO ONCOMING VEHICLES.
3. POLICE CRUISER W/BLUE LIGHTS (OPTIONAL) SHALL REMAIN IN THE SHOULDER.
4. CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE MA-W21-9 SIGN AS WELL AS THOSE SIGNS MOUNTED ON THE SHADOW VEHICLE(S).

= SHADOW VEHICLE

= WORK VEHICLE

= ARROW BOARD STATUS

= WORK ZONE

NOT TO SCALE

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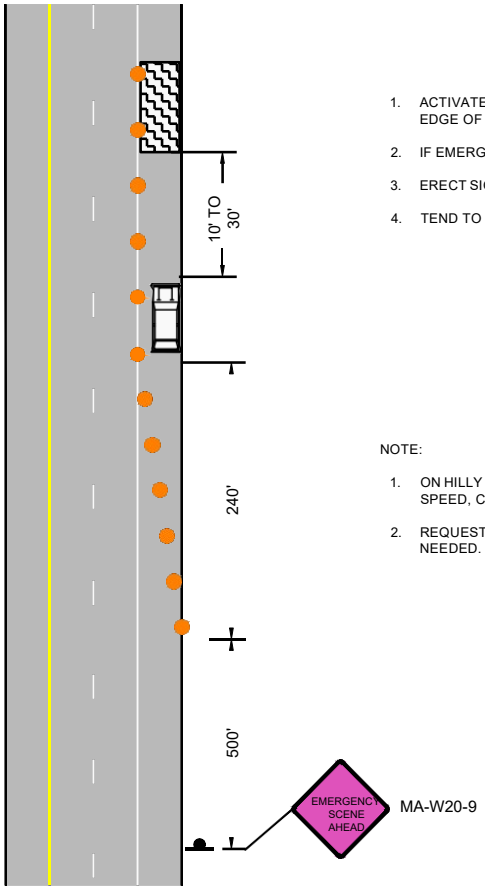
FIGURE 35
EMERGENCY RESPONSE
ANY ROADWAY
SHOULDER/BREAKDOWN LANE
NO ENCROACHMENT OF ROADWAY
NOT TO SCALE



1. ACTIVATE HAZARD WARNING LIGHTS AND FLASHERS. PULL TO THE RIGHT EDGE OF SHOULDER/BREAKDOWN LANE BEFORE STOPPING.
2. IF EMERGENCY INVOLVES INJURY SKIP TO #4 AND THEN #3.
3. ERECT SIGNS AND PLACE TRAFFIC CONES, 40 FT SPACING BETWEEN CONES.
4. TEND TO EMERGENCY/INCIDENT.

NOTE:

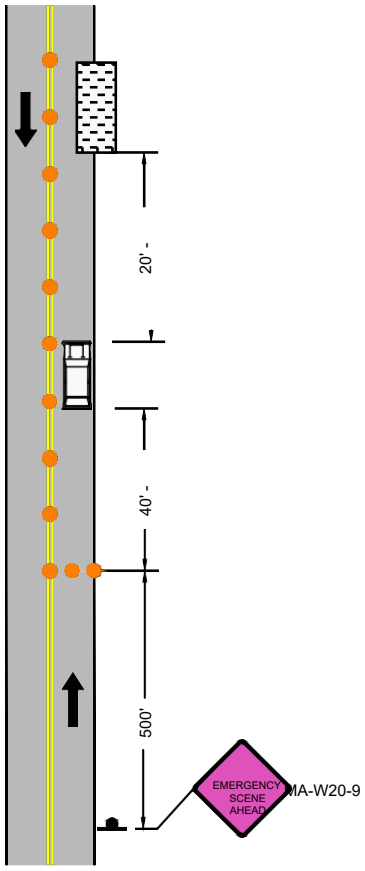
1. ON HILLY TERRAIN, ON SHARP CURVES, IN HEAVY TRAFFIC, OR WITH HIGH SPEED, CONE SPACING MAY BE DOUBLED TO 80FT.
2. REQUEST ADDITIONAL ASSISTANCE AND/OR TRAFFIC CONTROL DEVICES IF NEEDED.

= CHANNELIZATION DEVICE

= EMERGENCY RESPONSE VEHICLE

= EMERGENCY AREA

NOT TO SCALE



1. ACTIVATE HAZARD WARNING LIGHTS AND FLASHERS. PULL TO THE RIGHT EDGE OF TRAVEL LANE BEFORE STOPPING.
2. IF EMERGENCY INVOLVES INJURY SKIP TO #4 AND THEN #3.
3. ERECT SIGNS AND PLACE TRAFFIC CONES, 40 FT SPACING BETWEEN CONES.
4. TEND TO EMERGENCY/INCIDENT.

NOTE:

1. ON HILLY TERRAIN, ON SHARP CURVES, IN HEAVY TRAFFIC, OR WITH HIGH SPEED, CONE SPACING MAY BE DOUBLED TO 80FT.
2. REQUEST ADDITIONAL ASSISTANCE AND/OR TRAFFIC CONTROL DEVICES IF NEEDED.

= CHANNELIZATION DEVICE

= EMERGENCY RESPONSE VEHICLE

= EMERGENCY AREA

NOT TO SCALE

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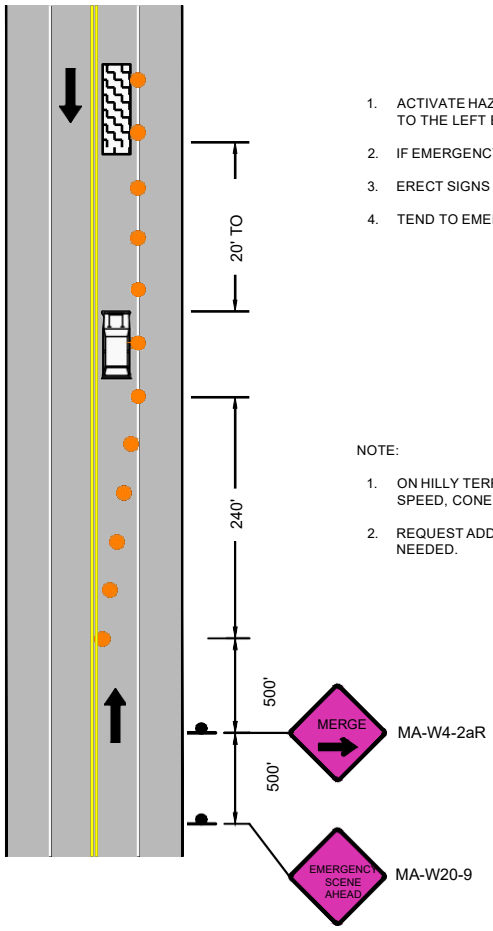
FIGURE 36
EMERGENCY RESPONSE
TWO LANE ROADWAY - NO SHOULDER
PART OR ALL OF TRAVEL LANE
ENCROACHMENT OF ROADWAY/TRAVEL LANE
NOT TO SCALE

FIGURE 37
EMERGENCY RESPONSE
TWO LANE ROADWAY
W/TRAVERSABLE SHOULDER
ENCROACHMENT OF ROADWAY/TRAVEL LANE
NOT TO SCALE



1. ACTIVATE HAZARD WARNING LIGHTS AND FLASHERS. PULL VEHICLE OVER TO THE LEFT EDGE OF TRAVEL LANE BEFORE STOPPING.
2. IF EMERGENCY INVOLVES INJURY SKIP TO #4 AND THEN #3.
3. ERECT SIGNS AND PLACE TRAFFIC CONES, 40 FT SPACING BETWEEN CONES.
4. TEND TO EMERGENCY/INCIDENT.

NOTE:

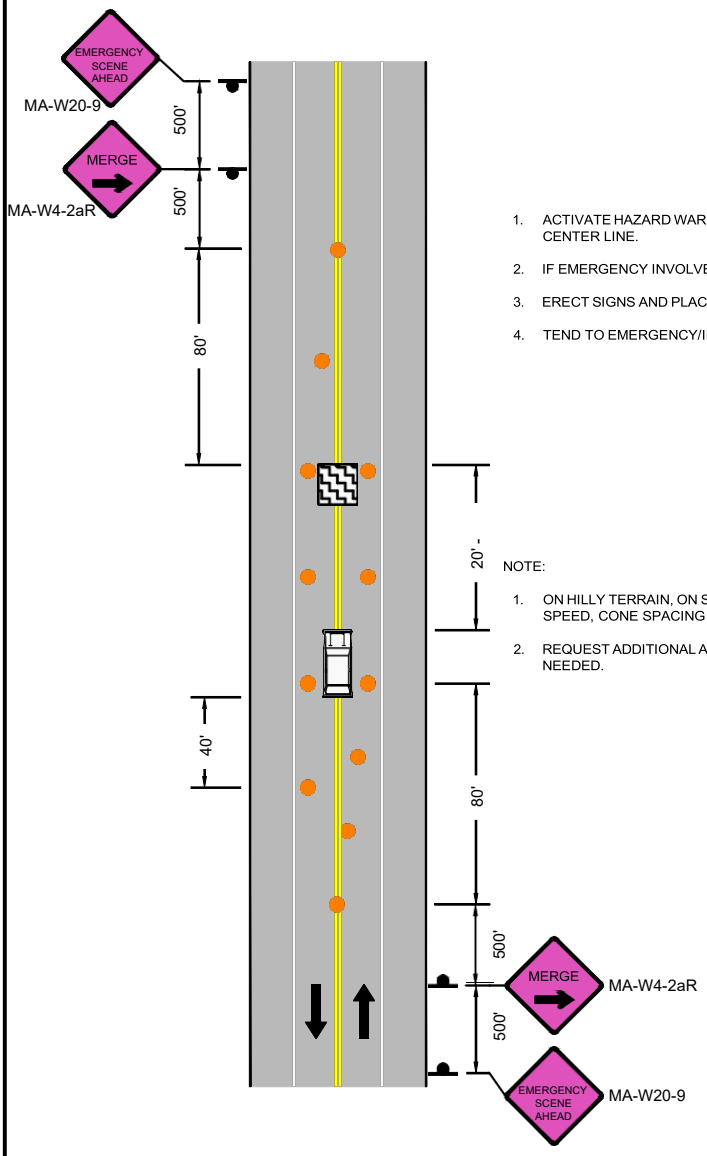
1. ON HILLY TERRAIN, ON SHARP CURVES, IN HEAVY TRAFFIC, OR WITH HIGH SPEED, CONE SPACING MAY BE DOUBLED TO 80 FT.
2. REQUEST ADDITIONAL ASSISTANCE AND/OR TRAFFIC CONTROL DEVICES IF NEEDED.

= CHANNELIZATION DEVICE

= EMERGENCY RESPONSE VEHICLE

= EMERGENCY AREA

NOT TO SCALE



1. ACTIVATE HAZARD WARNING LIGHTS AND FLASHERS. STOP VEHICLE ON CENTER LINE.
2. IF EMERGENCY INVOLVES INJURY SKIP TO #4 AND THEN #3.
3. ERECT SIGNS AND PLACE TRAFFIC CONES, 40 FT SPACING BETWEEN CONES.
4. TEND TO EMERGENCY/INCIDENT.

NOTE:

1. ON HILLY TERRAIN, ON SHARP CURVES, IN HEAVY TRAFFIC, OR WITH HIGH SPEED, CONE SPACING MAY BE DOUBLED TO 80 FT.
2. REQUEST ADDITIONAL ASSISTANCE AND/OR TRAFFIC CONTROL DEVICES IF NEEDED.

= CHANNELIZATION DEVICE

= EMERGENCY RESPONSE VEHICLE

= EMERGENCY AREA

NOT TO SCALE

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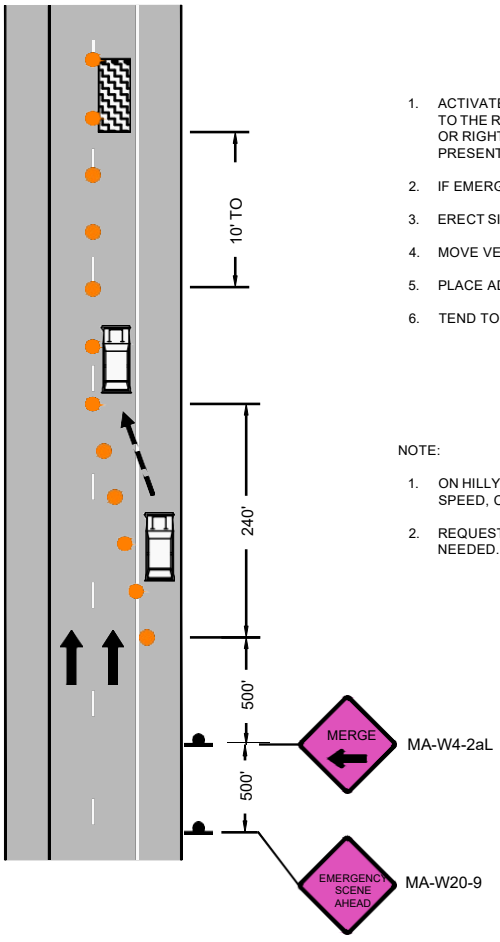
FIGURE 38
EMERGENCY RESPONSE
TWO LANE ROADWAY
W/TRAVERSABLE SHOULDER
CENTER OF ROADWAY
NOT TO SCALE

FIGURE 39
EMERGENCY RESPONSE
MULTILANE ROADWAY
2, 3, OR 4 TRAVEL LANES
RIGHT TRAVEL LANE
NOT TO SCALE



1. ACTIVATE HAZARD WARNING LIGHTS AND FLASHERS. PULL VEHICLE OVER TO THE RIGHT EDGE OF BREAKDOWN LANE OR SHOULDER WHERE PRESENT, OR RIGHT EDGE OF TRAVEL LANE IF NO BREAKDOWN LANE OR SHOULDER IS PRESENT, BEFORE STOPPING.
2. IF EMERGENCY INVOLVES INJURY SKIP TO #6 AND THEN #3.
3. ERECT SIGNS AND PLACE TRAFFIC CONES, 40 FT SPACING BETWEEN CONES.
4. MOVE VEHICLE BEHIND EMERGENCY.
5. PLACE ADDITIONAL CONES.
6. TEND TO EMERGENCY/INCIDENT.

NOTE:

1. ON HILLY TERRAIN, ON SHARP CURVES, IN HEAVY TRAFFIC, OR WITH HIGH SPEED, CONE SPACING MAY BE DOUBLED TO 80FT.
2. REQUEST ADDITIONAL ASSISTANCE AND/OR TRAFFIC CONTROL DEVICES IF NEEDED.

= CHANNELIZATION DEVICE

= EMERGENCY RESPONSE VEHICLE

= RESPONSE VEHICLE MOVEMENT

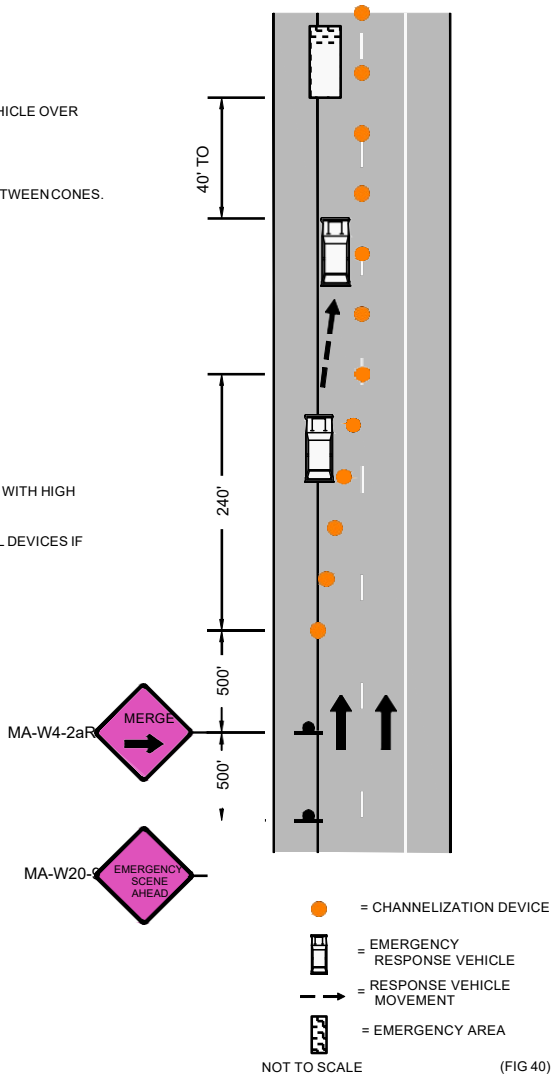
= EMERGENCY AREA

NOT TO SCALE

1. ACTIVATE HAZARD WARNING LIGHTS AND FLASHERS. PULL VEHICLE OVER TO EDGE OF MEDIAN WHERE PRESENT BEFORE STOPPING.
2. IF EMERGENCY INVOLVES INJURY SKIP TO #6 AND THEN #3.
3. ERECT SIGNS AND PLACE TRAFFIC CONES, 40 FT SPACING BETWEEN CONES.
4. MOVE VEHICLE BEHIND EMERGENCY.
5. PLACE ADDITIONAL CONES, AS REQUIRED.
6. TEND TO EMERGENCY/INCIDENT.

NOTE:

1. ON HILLY TERRAIN, ON SHARP CURVES, IN HEAVY TRAFFIC, OR WITH HIGH SPEED, CONE SPACING MAY BE DOUBLED TO 80 FT.
2. REQUEST ADDITIONAL ASSISTANCE AND/OR TRAFFIC CONTROL DEVICES IF NEEDED.



NOT TO SCALE (FIG 40)

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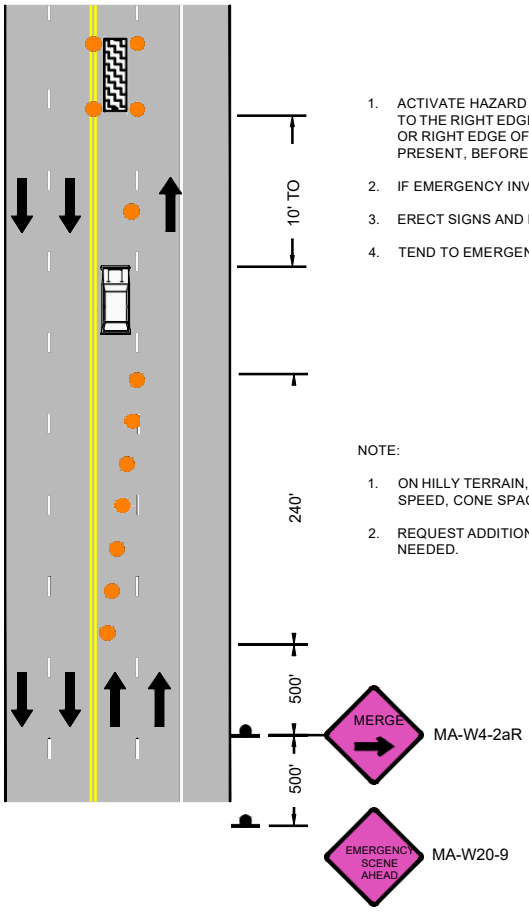
FIGURE 40
EMERGENCY RESPONSE
MULTILANE ROADWAY
2, 3, OR 4 TRAVEL LANES
LEFT TRAVEL LANE
NOT TO SCALE

FIGURE 41
EMERGENCY RESPONSE
MULTILANE ROADWAY UNDIVIDED
LEFT TRAVEL LANE
NOT TO SCALE



1. ACTIVATE HAZARD WARNING LIGHTS AND FLASHERS. PULL VEHICLE OVER TO THE RIGHT EDGE OF BREAKDOWN LANE OR SHOULDER WHERE PRESENT, OR RIGHT EDGE OF TRAVEL LANE IF NO BREAKDOWN LANE OR SHOULDER IS PRESENT, BEFORE STOPPING.
2. IF EMERGENCY INVOLVES INJURY SKIP TO #4 AND THEN#3.
3. ERECT SIGNS AND PLACE TRAFFIC CONES, 40 FT SPACING BETWEEN CONES.
4. TEND TO EMERGENCY/INCIDENT.

NOTE:

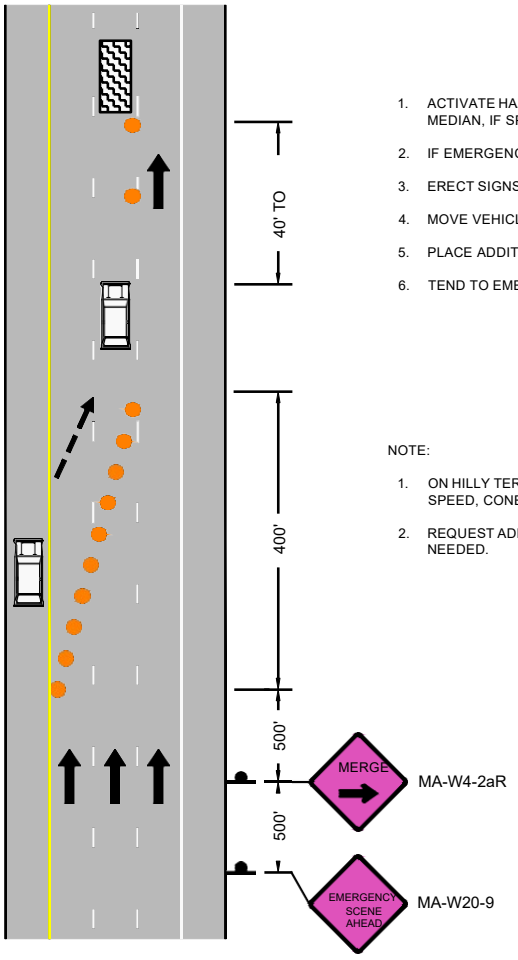
1. ON HILLY TERRAIN, ON SHARP CURVES, IN HEAVY TRAFFIC, OR WITH HIGH SPEED, CONE SPACING MAY BE DOUBLED TO 80FT.
2. REQUEST ADDITIONAL ASSISTANCE AND/OR TRAFFIC CONTROL DEVICES IF NEEDED.

= CHANNELIZATION DEVICE

= EMERGENCY RESPONSE VEHICLE

= EMERGENCY AREA

NOT TO SCALE



1. ACTIVATE HAZARD WARNING LIGHTS AND FLASHERS. STOP VEHICLE IN MEDIAN, IF SPACE IS AVAILABLE.
2. IF EMERGENCY INVOLVES INJURY SKIP TO #6 AND THEN#3.
3. ERECT SIGNS AND PLACE TRAFFIC CONES, 40 FT SPACING BETWEEN CONES.
4. MOVE VEHICLE BEHIND EMERGENCY.
5. PLACE ADDITIONAL CONES.
6. TEND TO EMERGENCY/INCIDENT.

NOTE:

1. ON HILLY TERRAIN, ON SHARP CURVES, IN HEAVY TRAFFIC, OR WITH HIGH SPEED, CONE SPACING MAY BE DOUBLED TO 80FT.
2. REQUEST ADDITIONAL ASSISTANCE AND/OR TRAFFIC CONTROL DEVICES IF NEEDED.

= CHANNELIZATION DEVICE

= EMERGENCY RESPONSE VEHICLE

= RESPONSE VEHICLE MOVEMENT

= EMERGENCY AREA

NOT TO SCALE

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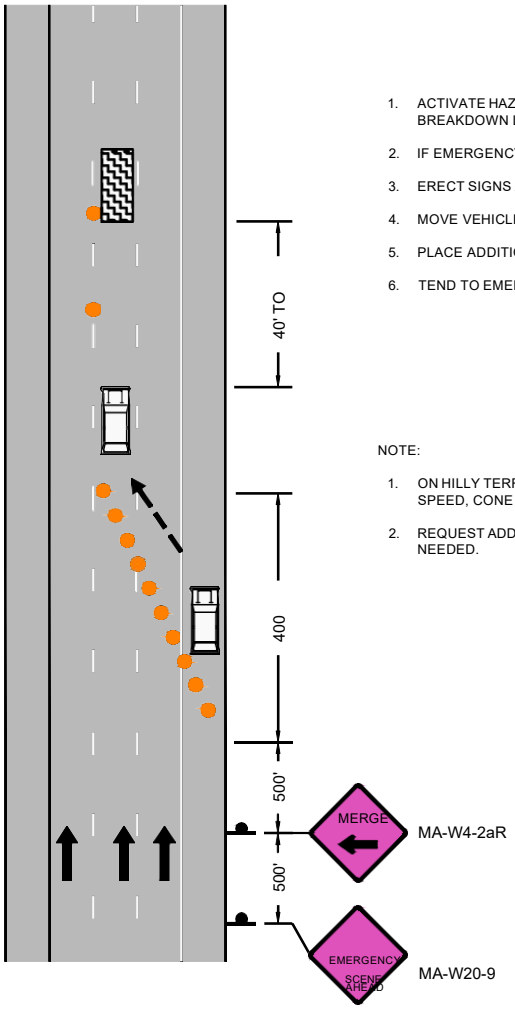
FIGURE 42
EMERGENCY RESPONSE
DIVIDED ROADWAY
APPROACH LEFT
MIDDLE LANES
NOT TO SCALE

FIGURE 43
EMERGENCY RESPONSE
DIVIDED ROADWAY
APPROACH RIGHT
MIDDLE LANE
NOT TO SCALE



1. ACTIVATE HAZARD WARNING LIGHTS AND FLASHERS. STOP VEHICLE IN BREAKDOWN LANE.
2. IF EMERGENCY INVOLVES INJURY SKIP TO #6 AND THEN#3.
3. ERECT SIGNS AND PLACE TRAFFIC CONES, 40 FT SPACING BETWEEN CONES.
4. MOVE VEHICLE BEHIND EMERGENCY.
5. PLACE ADDITIONAL CONES.
6. TEND TO EMERGENCY/INCIDENT.

NOTE:

1. ON HILLY TERRAIN, ON SHARP CURVES, IN HEAVY TRAFFIC, OR WITH HIGH SPEED, CONE SPACING MAY BE DOUBLED TO 80FT.
2. REQUEST ADDITIONAL ASSISTANCE AND/OR TRAFFIC CONTROL DEVICES IF NEEDED.

= CHANNELIZATION DEVICE

= EMERGENCY RESPONSE VEHICLE

= RESPONSE VEHICLE MOVEMENT

= EMERGENCY AREA

NOT TO SCALE

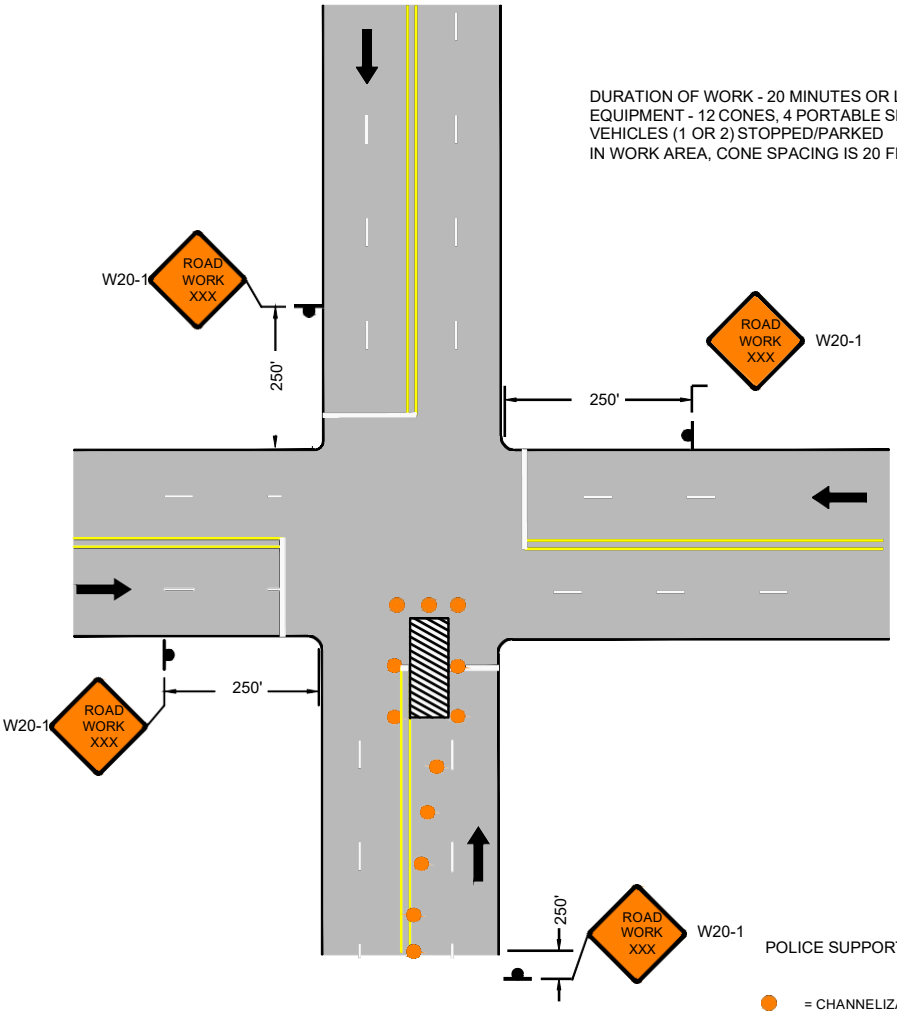


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FIGURE 44
TRAFFIC SIGNAL REPAIR/WORK
AT INTERSECTION
MULTILANE UNDIVIDED ROADWAY
LEFT/LEFT TURNING LANE
NOT TO SCALE

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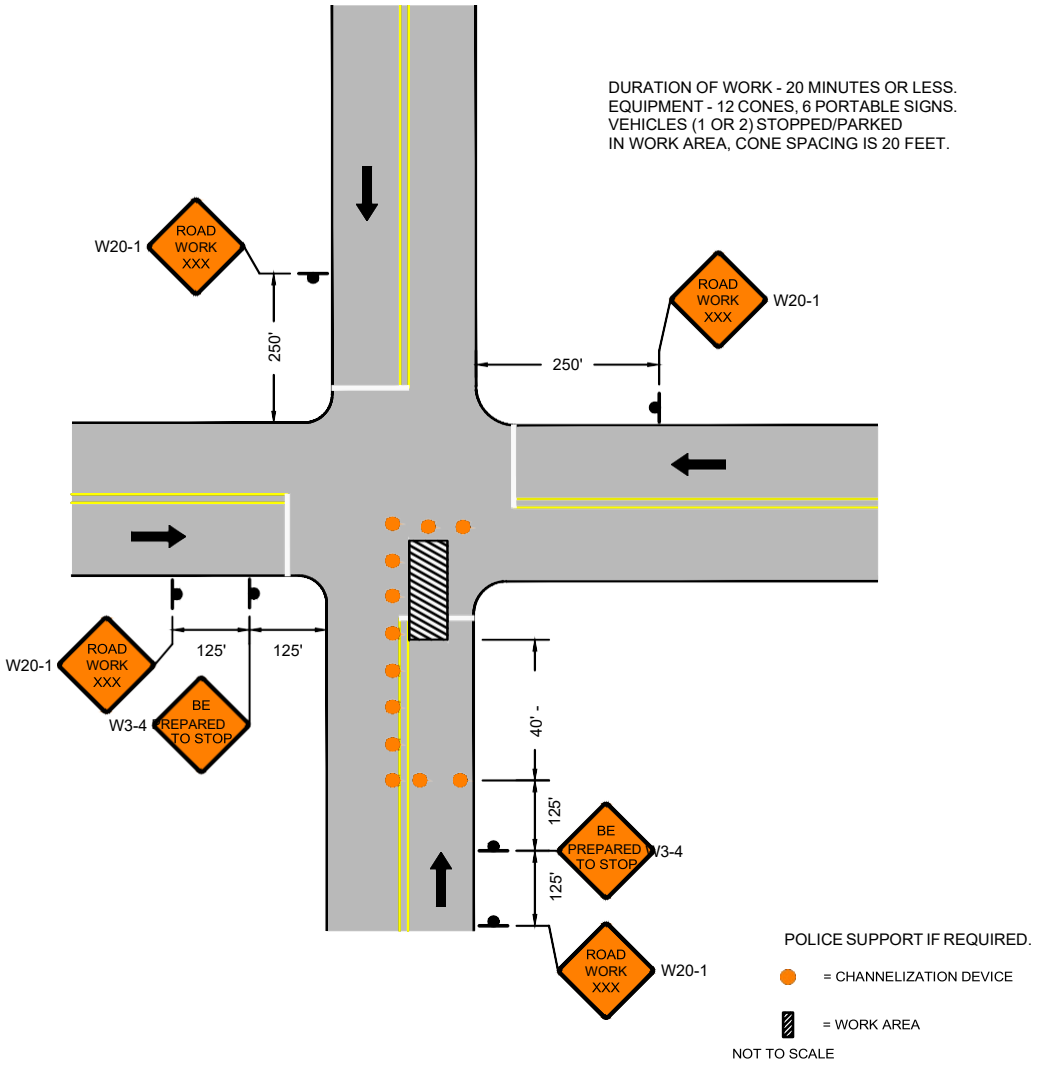

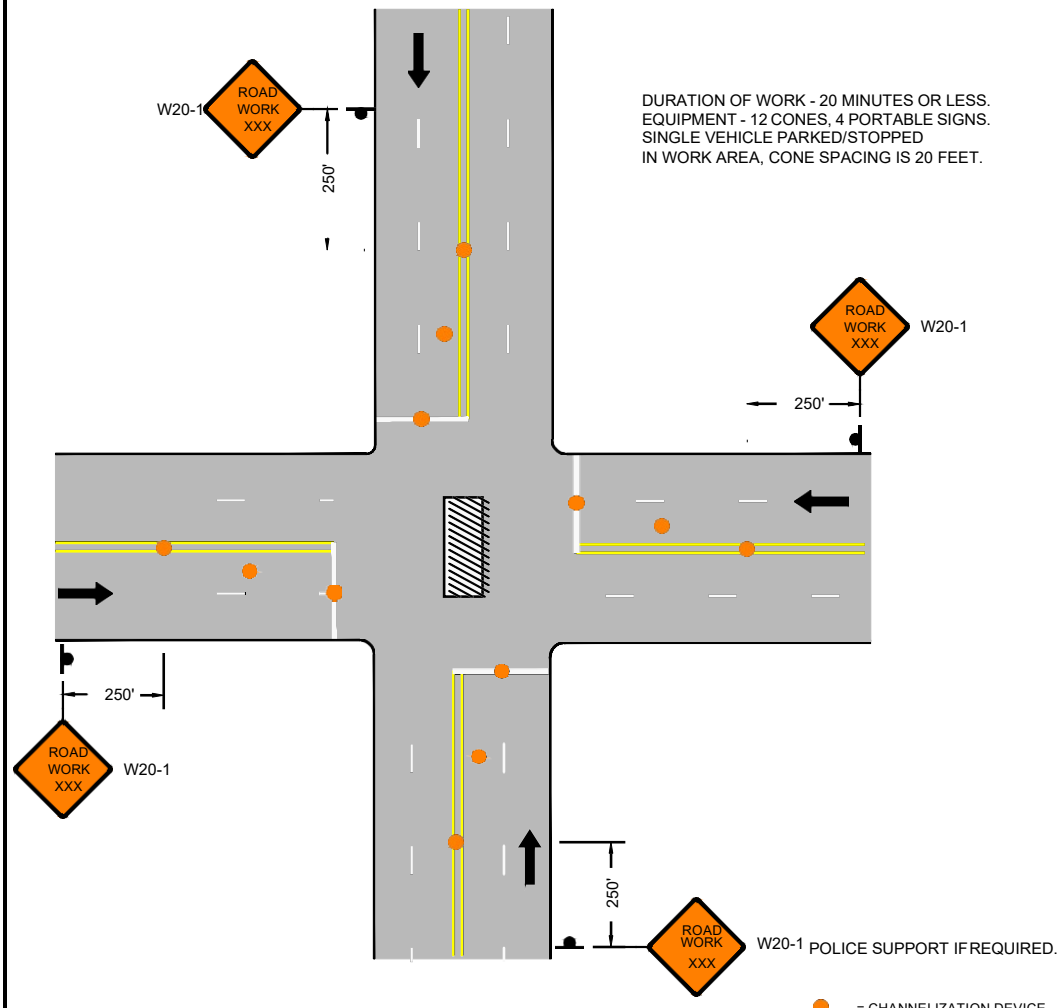

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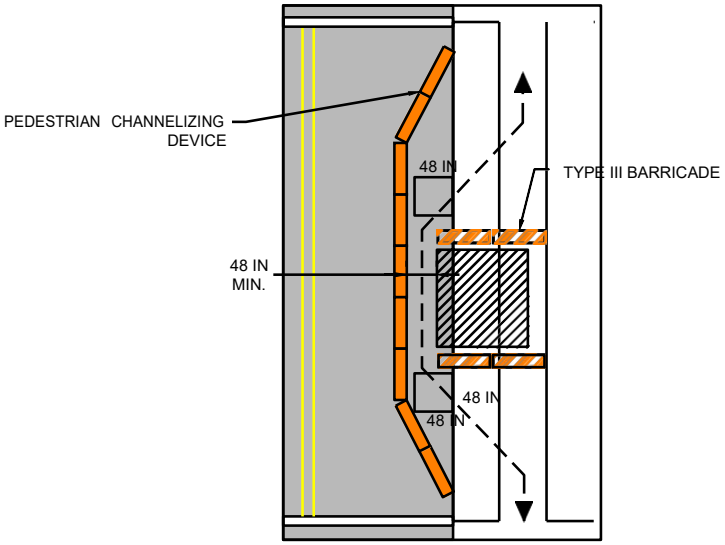
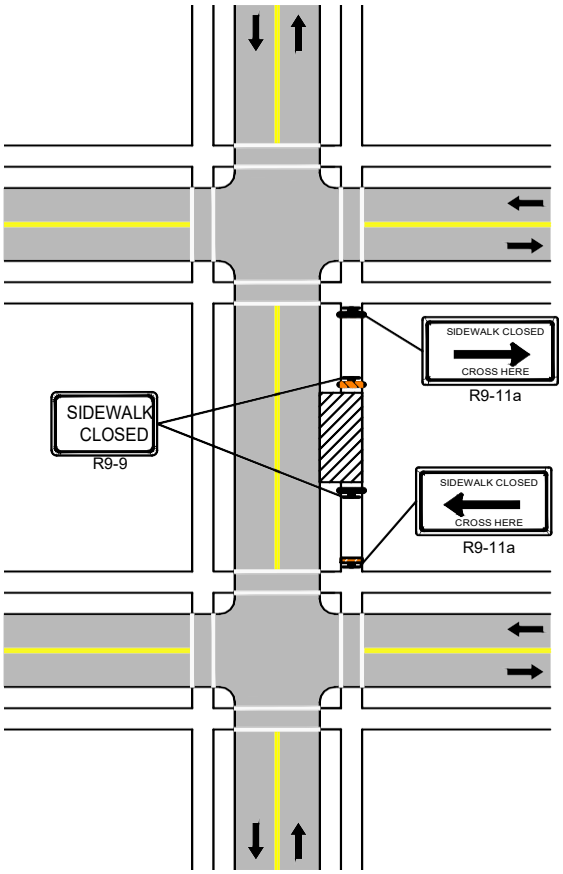
FIGURE 46
TRAFFIC SIGNAL REPAIR/WORK
AT INTERSECTION
MULTILANE UNDIVIDED ROADWAY
CENTER OF INTERSECTION
NOT TO SCALE

FIGURE 47
PEDESTRIAN BYPASS
NOT TO SCALE



- DETAIL I IS CONSIDERED AN EXAMPLE OF A SHORT TERM CLOSURE AND PEDESTRIAN ASSISTANCE (PERSONNEL) TO NAVIGATE AROUND THE CLOSURE/WORK AREA COULD BE CONSIDERED AS AN OPTION IN PLACE OF PROVIDING ADA/AAB DEVICES..
- WHEN EXISTING PEDESTRIAN FACILITIES ARE DISRUPTED, CLOSED, OR RELOCATED IN A TTC ZONE, TEMPORARY FACILITIES SHALL BE PROVIDED AND THEY SHALL BE DETECTABLE AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING PEDESTRIAN FACILITY.
- A PEDESTRIAN CHANNELIZING DEVICE THAT IS DETECTABLE BY A PERSON WITH A VISUAL DISABILITY TRAVELING WITH THE AID OF A LONG CANE SHALL BE PLACED ALONG THE FULL LENGTH OF THE CLOSED SIDEWALK.
- WHEN USED, TEMPORARY RAMPS SHALL COMPLY WITH AMERICANS WITH DISABILITIES ACT (SEE FIGURES 6 & 7).
- THE ALTERNATE PATHWAY SHOULD HAVE A SMOOTH CONTINUOUS HARD SURFACE FOR THE ENTIRE LENGTH OF THE TEMPORARY PEDESTRIAN FACILITY.
- THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THE SIDEWALK EXCEEDS 200 FEET THEN A 5 FOOT BE 5 FOOT PASSING ZONE SHALL BE PROVIDED.
- THE PROTECTIVE REQUIREMENTS OF A TTC WORK ZONE MAY HAVE AN IMPACT IN DETERMINING THE NEED FOR TEMPORARY TRAFFIC BARRIERS AND THEIR USE IN PROVIDING PEDESTRIAN DELINEATION SHOULD BE BASED ON ENGINEERING JUDGMENT .
- CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN; VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE. THESE DETAILS ARE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DETERMINED BY THE ENGINEER.

NOT TO SCALE



- CLOSURE OF A SIDEWALK FACILITY SHALL CONSTITUTE THE PROVISION FOR MANAGING PEDESTRIAN TRAFFIC AND ACCOMMODATING ALL USERS. IF THE EXISTING PEDESTRIAN ACCESS ROUTE(S) CAN BE TEMPORARILY RELOCATED ALONG THE EXISTING SIDEWALK , AND SAID FACILITY PROVIDES A MINIMUM WIDTH OF 48-INCHES OF SOLID, SMOOTH UNOBSTRUCTED SURFACE, THEN NO DETOURING OF THE ROUTE SHALL BE REQUIRED. DELINEATION OF THE WORK AREA IS STILL REQUIRED.

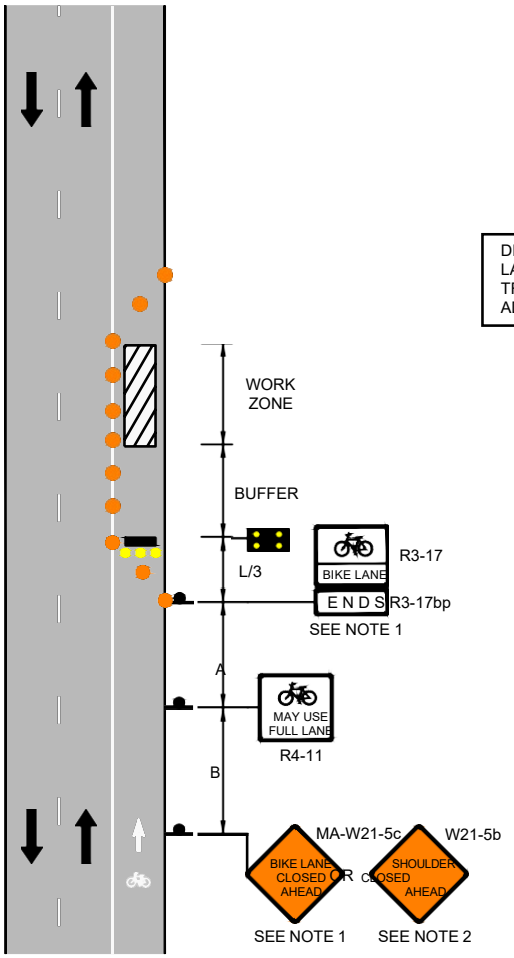
- IF IT IS NECESSARY TO DIVERT PEDESTRIAN TRAFFIC TO AN ALTERNATE ROUTE ACROSS THE ROADWAY FROM THE EXISTING FACILITY, THE FIGURE ABOVE SHALL BE FOLLOWED TO PROVIDE ADEQUATE DIRECTION TO PEDESTRIANS. ALTERNATE ROUTE SHALL PROVIDE THE SAME LEVEL OF ACCOMMODATION AS THE FACILITY THAT IS BEING DETOURED AND RETAIN ADA COMPLIANCE IN ITS ENTIRETY.

- FOR EMERGENCY OR SHORT-DURATION SIDEWALK CLOSURES OF 4-HOURS OR LESS, IT IS OPTIONAL TO HAVE A PERSON AVAILABLE AT ALL TIMES DURING THE CLOSURE TO ASSIST THOSE MOBILITY CHALLENGED PERSONS WHO REQUIRE ADDITIONAL ASSISTANCE TO SAFELY NAVIGATE AROUND THE WORK AREA IN LIEU OF A FULL DETOUR.

NOT TO SCALE

POSTED SPEED LIMIT (MPH)	SPACING FOR BIKE ADVANCE WARNING SIGNS (FT) (A,B))	CHANNELIZING DEVICES (PLASTIC DRUMS/3 FOOT CONES)			
		TRANSITION LENGTH (L/3)	BUFFER ZONE LENGTH (FT)	DEVICE SPACING (FT)	MIN # OF DEVICES*
25-40	150/150	100	305	20	45
45-55	150/150	220	495	40	35
60-65	150/150	260	645	40	40

* NUMBER OF DEVICES BASED ON 400 FT WORK ZONE.



DETAIL TO BE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS. SIGNING SHOWN ONLY FOR BIKE TRAFFIC. FOLLOW STANDARD DRAWING SIGNING AND ADDITIONAL DETAILS FOR VEHICULAR TRAFFIC.

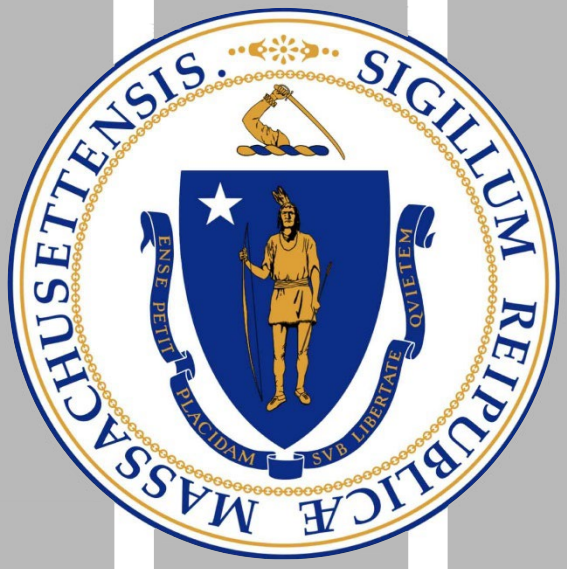
= ARROW BOARD

= 36 IN (MIN.) CONE OR PLASTIC DRUM (REFL.)

= WORK ZONE

NOTES

1. SIGN SHALL BE USED ONLY IF THERE IS MARKED BIKE LANE.
2. SIGN SHALL BE USED IF THERE IS NO MARKED BIKE LANE.



Safety is everyone's business

Rev. March 2017

APPENDIX E

BENTHEIC MATERIAL ASSESSMENT

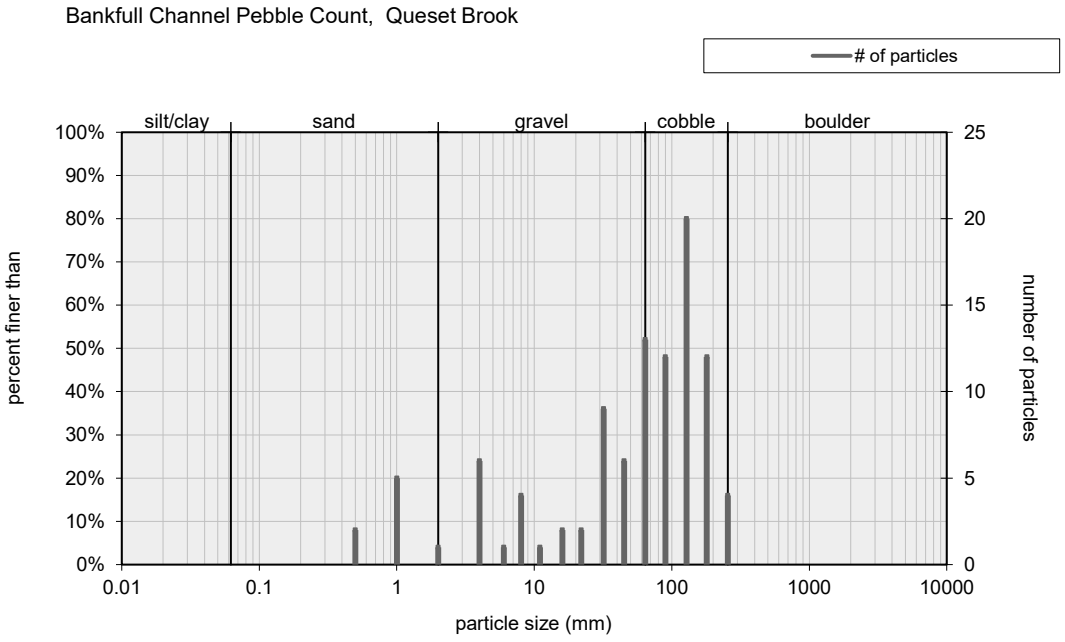
1) Individual Pebble Count

Two individual samples may be entered below. Select sample type for each.

Bankfull Channel

Material	Size Range (mm)	Count
silt/clay	0 - 0.062	
very fine sand	0.062 - 0.125	
fine sand	0.125 - 0.25	
medium sand	0.25 - 0.5	**2**
coarse sand	0.5 - 1	**5**
very coarse sand	1 - 2	**1**
very fine gravel	2 - 4	**6**
fine gravel	4 - 6	**1**
fine gravel	6 - 8	**4**
medium gravel	8 - 11	**1**
medium gravel	11 - 16	**2**
coarse gravel	16 - 22	**2**
coarse gravel	22 - 32	**9**
very coarse gravel	32 - 45	**6**
very coarse gravel	45 - 64	**13**
small cobble	64 - 90	**12**
medium cobble	90 - 128	**20**
large cobble	128 - 180	**12**
very large cobble	180 - 256	**4**
small boulder	256 - 362	
small boulder	362 - 512	
medium boulder	512 - 1024	
large boulder	1024 - 2048	
very large boulder	2048 - 4096	
total particle count:		100
bedrock ----------		
clay hardpan ----------		
detritus/wood ----------		
artificial ----------		
total count:		100

Note:



Size (mm)	
D16	6.4
D35	36
D50	61
D65	92
D84	130
D95	170

Size Distribution	
mean	28.8
dispersion	5.8
skewness	-0.28

Type	
silt/clay	0%
sand	8%
gravel	44%
cobble	48%
boulder	0%

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